

FLIGHT
AND
GROUND OPERATIONS
CONTRACTOR'S PROCEDURES
GUIDE



VERSION 1.3

TABLE OF CONTENTS

	Paragraph	Page
FORWARD		viii
Reference List		xix
Example Approval Letter		xxii
Chapter 1 - Terms Explained		
Section A - Terms Relating to Government		
Approving Authority	1-1	1
Government Flight Representative (GFR)	1-2	1
Procuring Contracting Officer (PCO) and Administrative Contracting Officer (ACO)	1-3	2
Section B - Terms Relating To Contractor		
Contractor	1-4	2
Flight Crewmember	1-5	2
Noncrewmember	1-6	2
Ground Personnel	1-7	3
Requesting Official	1-8	3
Aviation Safety Official	1-9	3
Flight Operations	1-10	3
Ground Operations	1-11	4
Section C - Terms Relating To Aircraft		
Test Aircraft	1-12	4
Production Aircraft	1-13	4
Government-Furnished/Bailed or Leased Aircraft	1-14	4
Type/Design Aircraft	1-15	4
Series Aircraft	1-16	4
Mission of Aircraft	1-17	4
Army Standard Aircraft	1-18	5
Army Nonstandard Aircraft and Contractor-Furnished Aircraft	1-19	5
Section D - Terms Relating To Flights		
Sortie	1-20	5
Experimental Test Flights	1-21	5
Engineering Test Flights	1-22	5
Check Flights	1-23	6

	Paragraph	Page
Support Flights	1-24	6
Chapter 2 - Government Flight Representative		
GFR Designation	2-1	9
GFR Cognizance	2-2	9
GFR Responsibilities	2-3	9
Procedure Review Requirements	2-4	9
Chapter 3 - Flight Operations Procedures		
Section A - Preparation of Procedures		
Preparation (Separate and Distinct)	3-1	11
Section B - Content of Procedures		
Flight Management	3-2	12
Facilities for flight planning	a.	12
Obtaining GFR approval for all flights	b.	13
Director of _____'s role in Flight Approvals	c.	15
Mixed flightcrews	d.	15
Designating pilot-in-command	e.	15
Minimum crew requirements	f.	15
Procedures when (Non-DLA) DoD crewmembers fly	g.	15
Aircrew Duty and Rest Limitations	3-3	16
Publications	3-4	17
Flight Crew Information File (FCIF)	a.	17
Flight Publications	b.	17
Qualifications and Training (General Information)	3-5	18
Safety	3-6	19
Mishap Prevention Program	a.	19
CONSOLIDATED SAFETY COUNCIL	(1)	19
Internal Flight Safety Surveys	(2)	20
Safety Publications	(3)	21
Published safety responsibilities	(4)	21
Hazard/Mishap reporting, & correction procedures	(5)	23
Scheduled Aircrew Flying Safety Meetings	(6)	24
Fire protection and prevention program	(7)	24
Foreign object damage (FOD) prevention program	(8)	26
Tool control	(9)	26
Pre-mishap Plan	b.	26

	Paragraph	Page
Aircraft Ground Handling (found in Chapter 8)	c.	69
Flight Crewmember Requirements	3-7	26
Director of _____ responsibilities	a.	26
Ground Training Requirements	b.	27
Flying Requirements	c.	29
Noncrewmember Requirements	3-8	30
The Director of _____ responsibilities	a.	30
Records	b.	31
Flying Requirements	c.	31
Passenger Transportation Procedures	3-9	32
Planning and Flight Mission Procedures	3-10	33
Mission Profiles	a.	33
Tracking of In-flight aircraft	b.	34
Crew Briefings	c.	34
Flight related Procedures	d.	37
Weather Minimums	(1)	37
Air Traffic Control	(2)	38
Filing Flight Plans	(3)	39
Standard Operating Procedures	(4)	39
Radio out	(a)	39
Gear Malfunction	(b)	40
Cross Wind Landings	(c)	40
VFR Landing Pattern	(d)	40
In-Flight Emergency (IFE)	(e)	40
Controlled Bailout/Ejection & Jettisoning Area	(f)	40
Arming/Dearming Weapons	(g)	40
Minimum Fuel	(h)	41
Life Support Equipment	(i)	41
Severe Weather	(j)	41
Weight & Balance	(k)	42
Laser Operations	(l)	42
Life Fire and Gunnery	(m)	42
Bird Strikes	(n)	43
Required Daylight Operations	(o)	43
Stalls, Aerobatics, and Slow Flight	(p)	43
Touch-and-go Landings	(q)	43
Supersonic Flights	(r)	44
Unlawful Seizure Procedures	3-11	44
Experimental and Engineering Operations	3-12	45
Drug Free Work Force Program	3-13	46

	Paragraph	Page
Section C - Approval		
Approval of Procedures	3-14	46
Section D - Deficiencies		
Procedure Deficiencies	3-15	46
Section E - Noncompliance		
Noncompliance with Approved Procedures	3-16	47
Section F - Revision		
Review System	3-17	47
Chapter 4 - Forms and Records		
Forms	4-1	49
DD 1821 Contractor Crewmember Record	a.	49
Request for Approval for Qualification Training	b.	49
Request for Approval of Contractor Flight Crewmember	c.	49
Approval of Flight Noncrewmember	d.	49
Flight Safety Qualifications Card	e.	49
Training Folder	4-2	50
Records (Flight Crewmember)	4-3	50
Records (Noncrewmember)	4-4	51
Flight Time Records	4-5	52
Access To Records	4-6	52
Records (Ground Personnel)	4-7	52
Chapter 5 - Qualification Requirements		
General Qualifications	5-1	53
Experimental Test Flights and Associated Experimental		
Ground Operations	5-2	53
Pilot	a.	53
TPS Waivers	b.	53
Flight Engineer	c.	54
Other Flights (Engineering Test, Check Flights, and		
Support Flights)	5-3	54
Pilot	a.	54

	Paragraph	Page
Copilot	b.	54
Maintenance Test Pilot (MTP) (Army)	c.	54
Flight Engineer	d.	54
Aircraft Categories	Table 5-1	55
Qualification in Mission/Type/Design/Series Aircraft	5-4	55
Pilot	a.	55
Copilot	b.	55
Flight Engineer	c.	55
Other Flight Crewmembers	d.	55
Maintenance Test Pilot (Army)	e.	56
Currency Requirements	5-5	56
Pilots/copilots	a.	56
Navigators, Flight Engineers, & other crewmembers	b.	56
Physiological Training	5-6	56
Egress and Emergency Training	5-7	56
Special Training/Qualifications	5-8	56
 Chapter 6 - Flight Crewmember/Noncrewmember Approval		
Requesting Officials	6-1	59
Government Approval for Qualification Training	6-2	59
Government Approval for Flight Crewmember Status	6-3	59
Contractor Approval for Noncrewmember Status	6-4	59
Contractor Instructor Flight Crewmember	6-5	60
Termination of Approvals	6-6	60
 Chapter 7 - Flight Crewmembers Proficiency Requirements		
General Requirements	7-1	63
Minimum Requirements	7-2	63
Pilots & Copilots, Hours vs. Sorties	a.	64
Using Simulators to Substitute Requirements	b.	64
Night, Instrument, & Approaches	c.	64
Operationally Oriented Flight Events	d.	64
Navigators & Other Crewmembers, Hours vs. Sorties	e.	64
Flight Engineers	f.	64
Evaluations	7-3	64
Proficiency Flight Evaluations	a.	59
No-Notice Evaluations	b.	60
Ground Evaluations	c.	60
Proficiency Evaluator	7-4	65
Multiple Qualification	7-5	65
Requalification	7-6	65

	Paragraph	Page
Chapter 8 - Ground Operations		
Application	8-1	69
Procedures	8-2	69
Medical/Physical Requirements	a.	69
Qualification and Requalification Requirements	b.	69
Certification Requirements	c.	69
Ground Operations	d.	70
Severe Weather Plan	e.	70
Engine Operations by Ground Personnel	8-3	70
Egress Familiarization Training	8-4	71
Records/Documentation	8-5	71
Chapter 9 - Additional Administrative Matters		
Requests for Waivers	9-1	73
Reports	9-2	73
ATTACHMENTS		
Title	APPENDIX	
Prevention of Foreign Object Damage, Control of Foreign Object Debris and Tool Control Procedures	A	
Pre-Mishap Plan	B	
Forms & Formats	C	
Maps & Charts	D	
Laser Operations	E	
Powered Aerospace Ground Support Equipment	F	
Explosives Safety	G	
Refueling and Defueling	H	
Towing, Parking, Mooring & Workstands	I	
Aircraft Jacking	J	
Aircraft Marshaling	K	
Egress System Maintenance (not included at this time)	L	
Aircraft Engine & Auxiliary Power Unit (APU) Operations	M	
Aircraft Taxiing by Ground Personnel	N	
Oxygen Servicing & Compressed Gas Procedures	O	
Aircraft Hydraulic System Servicing & Ground Cooling (not included at this time)	P	
Severe Weather Plan	Q	

FOREWORD

During the 1993 DLA/Tri-Service Review a common problem was identified that Government Flight Representatives (GFRs), particularly new GFRs, did not understand what they should be looking for when reviewing Contractor's Procedures for adequacy. In addition, contractors often did not understand what is required to comply with the Contractor's Flight and Ground Operations regulation (manual) DLAM 8210.1, Vol. 1.(AFR 55-22V1, AR 9520, NAVAIRINST 3710.1C), and the contract.

This guide has been written to serve two purposes. First, it serves as a standard that GFRs can compare to actual Contractor's Procedures. Second, contractors can use the guide as a template to develop their own Contractor's Procedures. Contractor's Procedures are required when the Ground and Flight Risk (G&FRC), or Flight Risk clause (DFAR 252.228-7001 or 7002) are included in an aircraft contract. For those contracts with either one of these clauses, but with no mention of DLAM 8210.1, the contractor is still required to develop Contractor's Procedures that will minimize the risk the Government is assuming; this can be accomplished by using this template. This guide can also be used, with some modification, for those contracts with the 3 April 1979 version of 8210.1, since both versions are similar in organization and purpose.

For the purposes of this guide, 8210.1, and contracts where the Government assumes some or all of the risk of loss Contractor's Procedures are those specific, written instructions pertaining to all Flight Operations (defined in 8210.1, Vol. 1, paragraph 1-10) and Ground Operations (defined in 8210.1, Vol. 1, paragraph 1-11). The word Contractor's is deliberately written possessive to demonstrate the contractor's ownership of the Procedures. Contractor's Procedures that are not written and approved in writing by a GFR, contractually do not exist.

GUIDE TO THE GUIDE

The guide is set up to follow DLAM 8210.1, Vol. 1. This is a joint manual/regulation/instruction. Whenever 8210.1 is referenced, it is to be considered as referencing AFR 55-22V1, AR 95-20 and NAVAIRINST 3710.1C, all of which are interchangeable. Both the contractor and the GFR, however, should use the specific reference

used in the contract. This guide has not incorporated the proposed changes to 8210.1 which is in the process of being updated and re-written to incorporate recommendations from the DLA/Tri-Service review. It follows the intent of the proposed revisions while stopping short of requiring operations over and above the terms of the G&FRC and the current 8210.1. Contractors must follow the version currently on contract, therefore this guide was written to comply with what exists now. However, times change, the rewrite follows changing philosophies and lessons learned and clarifies requirements.

Since each contractor operation is unique, it is impossible to construct a fill-in-the-blanks guide that will satisfy every contract and every contractor. However, most common situations have been addressed. If a contractor were to take this guide as written, fill in the blanks, implement the Contractor's Procedures herein, they would have Contractor's Procedures safe enough to *start with*, until they can fully address all the specifics of their unique operations and contract. In this case contractors should fill in their name wherever they see: <_____>. Director of _____, refers to that contractor point-of-contact overseeing the contractor's flight and ground operations. Various contractors use Aviation Safety Official (defined in 8210.1, Vol. 1, 1-9), Director of Flight Test, Director of Flight Operations, Director of Safety, Chief Pilot or Chief of (contractor) Flight Operations. This guide is not an acceptable *permanent* replacement for contractor written Contractor's Procedures

For every paragraph of 8210.1 the guide gives an example procedure. 8210.1 is followed paragraph by paragraph. Additional sub-paragraphs have been added to provide the actual procedures. Following 8210.1 in this manner serves two purposes: it ensures the contractor doesn't leave anything out when writing the Contractor's Procedures and it gives the Contractor's Procedures a structure that is familiar to all GFRs. DLAM 8210.1 does not require following this format. However, when a contractor elects to follow a different format, an index should be included listing each paragraph in the DLAM and the corresponding paragraph from the Contractor's Procedures. This will serve the same purposes listed above.

When contractors write their Procedures, all paragraphs of DLAM 8210.1 should be addressed. For those paragraphs that are clearly not applicable, the Procedures should state: <paragraph reference> <subject/title> Not Applicable.

Example: contractor X does not do experimental test flights; X's Procedures should have an entry:

1-4 Experimental Test Flights. Not Applicable.

Contractors may reference applicable tech orders directly (i.e. aircraft jacking will be in accordance with T.O. 12345-93). The tech order does not need be reproduced verbatim or otherwise in their Contractor's Procedures. However, the tech order must be readily available to the employees performing the task, employees must be trained on the T.O., and the T.O. must be one that describes the specific duties and responsibilities necessary to accomplish the task. The Contractor's Procedures must address any local instructions needed to accomplish the task in addition to the T.O..

The contractor may reference other contractor operating instructions (OIs) in their Contractor's Procedures. It should be clearly understood that once a GFR approves the Contractor's Procedures, they become part of the contract and are enforceable as such. Therefore, in this case, the OIs must be attached to the Contractor's Procedures and cannot be altered without GFR approval. The GFR will be approving only the attached version.

Example:

3-6 a.(9) Tool Control Requirements. Tool control will be in accordance with <_____> OI 47109.3 (attached)).

Contractor's Procedures should not state: 'the procedure will be in accordance with . . .' a Service regulation, manual, or MIL-STD unless the referenced document contains specific

instructions (procedures) for complying with the appropriate requirements of 8210.1, or, further guidance is included in the Contractor's Procedures themselves.

Example 1: (unacceptable)

3-6 a.(9) Tool Control Requirements. <_____>'s tool control program will be in accordance with MIL-STD 980.

MIL-STD 980 has no specific procedures, rather, it is a requirements list not unlike 8210.1.

Example 2: (acceptable)

3-6 a.(9) Tool Control Requirements. <_____>'s tool control program will be in accordance with MIL-STD 980. <_____>'s OI XXXX, Prevention of Foreign Object Damage and Control of Foreign Object Debris (Appendix A, attached) details the specifics of the tool control program.

Contractor's Procedures must be effective. When no specific requirements are identified in the contract, contractors are held to a standard similar to what the owning Service organization would be held to if the Service were performing the task. However, GFRs can only enforce a reasonable requirement.

Example:

To meet the requirements of paragraph 3-7 b.(5) Life-support equipment training, contractor crewmembers should receive training similar in content and frequency to Navy training if the contractor crewmembers are flying Navy aircraft, and Air Force training if the contractor crewmembers are flying Air Force aircraft.

GFRs must be careful not to require a standard over and above what the contract requires. To do so could be construed as a constructive change to the contract (that would be a BAD THING)..

Example:

To meet the requirements of paragraph 3-6 b.(2) Aircraft rescue and fire fighting (ARFF) (also known as Crash/Fire Rescue (CFR) Procedures, a GFR can insist that ARFF personnel be trained as necessary to rescue aircrews and control aircraft fires. However, the contractor cannot be forced to comply with a specific standard like AFMCI 91-101 unless it is otherwise required in the contract.

Obviously, the GFR must walk a very fine line between enforcing what is safe and reasonable, and what the contract requires.

Contractors may, on their own, select a stricter standard than the contract requires when they write their Contractor's Procedures. In all cases, once Contractor's Procedures are approved, they are enforceable just like the contract.

All that said, what's the bottom line? What is the standard for effective Contractor's Procedures? Well, in many ways, I hope this guide will help everyone understand how to use DLAM 8210.1 to write/approve effective Contractor's Procedures. But the true standard comes from the contract and the Uniform Services (USAF, USN, USMC, & USA). The Services assume contractors will maintain, handle, protect, and operate Government aircraft in the same manner the Government does; that is, following the same Service standards, regulations, instructions, manuals and T.O.'s. But, not all Service directives are applicable. Contractor's must develop Contractor's Procedures only for those specific ground and flight operations required by the contract.

Besides the contract and Service directives Contractor's Procedures must take into account lessons learned. The most important reason for investigating a mishap is to prevent further mishaps. Contractor's Procedures must be readdressed when they are found to be

ineffective in preventing mishaps. Towards that end, many processes within the Contractor's Procedures require the identification of the process owner (the FOD monitor, requesting official, etc.). While not a requirement, identifying the process owner for most processes helps identify who's in charge and who is empowered to correct deficiencies.

This is a guide only. It IS NOT meant to tie anyone's hands. It IS meant to help the GFR and contractor reduce risk to personnel and equipment in ways they may not have thought of before. Even though this guide clarifies some of the requirements, it is not to be construed as a constructive change to the contract. This guide has been specifically written FOR contractors, as a tool to assist them in developing safe and effective Contractor's Procedures. The GFR has been given the responsibility to approve the Contractor's Procedures and he or she has the authority to determine when the Contractor's Procedures meet the requirements of the contract, not the guide.

A word on format. This Guide was written in Microsoft™ Word for Windows™ Version 6.0 and then converted to Version 2.0 so that other word processors could read it. It is unlikely other word processors will read the Guide without some loss of format. These are the default format settings generally used in the guide:

font	-	Times New Roman (True Type), 12 point, titles at 18 point.
tabs	-	<i>normally</i> at .19" .38" .56" .75" .94" 1.13" 1.31" 1.5" 1.69" 1.88" and 2.06" (the Foreword does not follow the normal tab settings)
margins	-	1" top, bottom and sides
footers	-	.5"
headers	-	.5" (however, there are no headers in use in the Guide)
spacing	-	single space (except in Foreword)

Considering the number of man-hours required to reformat the entire guide you may wish to stick with the original word processing format. It is organized for double sided printing with blank pages inserted so each new section/chapter prints on the facing page. The Guide is 256 pages long (including the blank pages). To minimize deforestation, I highly recommend printing in the original two sided format or using a print utility (like Click Book™ (call 415-354-8166 for more information)) and print it in booklet format, i.e. four printed pages to one sheet of paper.

Version 1.3 of the Guide is divided into the following files:

foreword.doc (132608 bytes)	the Foreword.
c1-9.doc (345088)	chapters 1 - 9
apdx-ab.doc (473088)	appendices A & B
apdx-c.doc (1374208)	appendix C
apdx-dk.doc (980480)	appendices D, E, F, G, H, I, J, & K
apdx-mr.doc (528896)	appendices M, N, O, Q, & R

This totals about 3.66 megabytes. You may receive these files in a zipped format. The two files are Guide1.zip (contains the Foreword, chapters 1 - 9, and appendix C) and Guide2.zip (contains appendices A, B, D, E, F, G, H, I, J, K, M, N, O, Q, & R). Both use the PKUNZIP program to decompress the files.

A background statement enclosed in a gray box like this one, clarifying certain requirements, is included at the beginning of many paragraphs of the guide. Other paragraphs do not require any further enhancement. Additional information may also be found at the conclusion of some paragraphs.

The most recent changes or additions made to this guide will be marked with a bold line to the left of the changed paragraph.

Earlier changes from version 1.3 will be marked with a thin line to the left of the changed paragraph.

VERSION 1.3 CHANGES:

Changed AQCOI to AQOI throughout Guide to reflect new office symbol.

Changed all references of "DPRO" or "DCMAO" to "local DCMC office" to reflect recent change.

Added new Appendix K for Aircraft Marshaling.

Added new Appendix Q for Severe Weather.

Changed ARFF vehicle checklist.

Added references to applicable USAF/USN/USA instructions, T.O.'s, regulations, and manuals, throughout the appendices. It is hoped contractor's will use the referenced material to assist them in developing their own procedures. There is, after all, no need to reinvent the wheel.

Changed the font to Times New Roman 12 to improve readability.

NOT SO RECENT CHANGES:

Added a process for identifying process owners for individual procedures.

Changed references to IMC 97-1 to One Book references, with applicable sections of DLAD 5000.4, Chapter 4 included.

Added improved guidance on bailed/leased aircraft.

Updated format for Contractor's Procedures approval letter.

Added Appendix R, Semi Annual Survey Checklist. Semi Annual Surveys are required by DLAM 8210.1, Vol 1, 3-6. a. (2). The appendix checklist is identical to the GFR checklist and allows contractors to better prepare for surveys.

Added additional guidance on passenger transportation requirements.

Added a process for ensuring aircraft technicians with overdue tools are not allowed to checkout additional tools.

Added new hazards to the ARFF mishap site briefing.

Added new item to initial mishap response kit, flightline access car windshield signs.

FREQUENTLY ASKED QUESTIONS:

QUESTION 1: The contract does not require the contractor to provide flight crews. What portions of 8210.1 must be addressed in the Contractor's Procedures?

Many contractors do not have flight crews. These contractors sometimes erroneously ignore all paragraphs in the regulation that refer to flight operations. Where all flights are conducted by Government crews after the DD-250 is signed and there are no contractor (or sub-contractor) personnel on board any flight, all paragraphs in 8210.1 referring to flight operations shall be addressed except:

Paragraph 3-2b. Procedures for obtaining GFR approval for all flights.

Paragraph 3-2c. Flight Authorization

Paragraph 3-2d. Procedures governing the use of mixed flight crewmembers.

Paragraph 3-2e. Procedures for designating pilot-in-command

Paragraph 3-2f. Minimum crew requirements.

Paragraph 3-3. Aircrew Duty and Rest Limitations.
Paragraph 3-5. Qualifications and Training.
Paragraph 3-7. Flight Crewmember Training Requirements.
Paragraph 3-8. Noncrewmember Requirements.
Chapter 4 FORMS AND RECORDS
Chapter 5 QUALIFICATION REQUIREMENTS
Chapter 6 FLIGHT CREWMEMBER/NONCREWMEMBER APPROVAL
Chapter 7 FLIGHT CREWMEMBER PROFICIENCY REQUIREMENTS

Procedures for paragraphs/chapters not listed above that directly involve flight operations refer to procedures that are either definitions or support Government flight personnel.

QUESTION 2: The contract is for Contractor Logistics Support (CLS) (i.e. towing, routine maintenance, refuel/defuel, etc.). DoD aircrews fly the aircraft exclusively. What must be included in the Contractor's Procedures now?

Contractors performing CLS contracts on DoD installations ~~may~~ not be required to provide flight support (i.e. mission planning facilities), and therefore those portions of 8210.1 related to flight support would not apply. Check the contract; it will specify exactly what the CLS effort will cover. All other safety procedures would apply, including the Consolidated Safety Council, the Pre-Mishap plan, etc.

QUESTION 3: There is some debate on the exact meaning of the terms will and shall. How does this guide interpret them?

The following terms are used interchangeably throughout this guide; should, shall, will, and must. If taken in context directly from DLAM 8210.1, they all mean the same thing: this is not a recommendation, this is a requirement (Thank the debate team captains, the debate is over.) If the terms appear in an expanded example procedure and there is a question, someone is missing the point of this guide. The point is to safely address every operation required by contract. If there is a different way of doing business that is as safe or safer, go for it.

QUESTION 4: The contractor has subcontracted refuel/defuel operations. Who is responsible for writing the Contractor's Procedures for these operations?

The prime contractor. The subcontractor may actually develop the Procedures but they are part of the prime contractor's Contractor's Procedures. In addition, it is the prime's responsibility to enforce compliance of the refuel/defuel procedures. The same is true when a contractor has a letter of agreement with another agency to comply with a particular requirement such as Aircraft Rescue and Fire Fighting (ARFF). In this case the letter of agreement should spell out who does what, and should be available to the GFR for review.

QUESTION 5: Are Contractor's Procedures required for bailed aircraft?

Maybe. They would normally be required if the Government, by the bailment agreement (contract), is assuming some or all of the risk of loss. A good description of bailed/leased aircraft can be found in NAVAIRINST 13101.1, Policy & Procedures for NAVAIR Controlled Aircraft Provided by the Government to Non-military Organizations.

QUESTION 6: Who would be responsible for damages to an aircraft if it were damaged when the contractor was performing operations without approved Contractor's Procedures?

Central to the Ground and Flight and Flight Risk Clauses is the fact that the Contractor agrees to be bound by the operating procedures contained in the combined regulation: "Contractor Flight Operations" in effect on the date of contract award (i.e. Air Force Regulation 52-22, Army Regulation 95-20, NAVAIR Instruction 3710.1; and Defense Logistics Agency Manual 8210.1). The Government only assumes risk when the contractor is operating under approved Contractor's Procedures.

QUESTION 7: There are procedures in this guide that the contractor does not address in their Contractor's Procedures and others that are addressed differently. Must the contractor rewrite their Contractor's Procedures to duplicate the recommendations in this guide?

No. However, all aircraft ground and flight operations the contractor is performing (or being paid for) must be addressed, in writing, and in a safe and effective manner.

QUESTION 8: If the Flight Risk Clause DFARS 252.228-7002, is on contract instead of the Ground and Flight Risk Clause, what parts of this guide apply?

All of it. The Flight Risk Clause contains the following statement:

"The Contractor agrees to be bound by the operating procedures contained in the combined regulation: "Contractor Flight Operations" in effect on the date of contract award (Air Force Regulation 55-22, Army Regulation 95-20, NAVAIR Instruction 3710.1; and Defense Logistics Agency Regulation 8210.1)."

This clause only appears in cost reimbursement type contracts. Since the Government reimburses all costs incurred by the contractor (and no \$1,000 deductible applies) it is imperative all operations are conducted in as safe a manner as possible. Regardless, nowhere in the clause does it provide relief from any portion of the joint regulation.

If you need further help consult: the Government Flight Representative Guidance manual, DLAM 8210.1 Vol. 2., your GFR (if you are a contractor writing Contractor's Procedures), other GFRs (if you are a GFR reviewing Contractor's Procedures), your District Chief of Flight Operations (CFO) or AQOI at DSN 427-3418/23/28/17 (commercial 703-767-34XX).

If you find any errors or have any recommended changes to improve this guide please send your comments to DCMDN-OA, Attn: Lt Col John Heib, 495 Summer St., Boston, MA 02210-2184, or FAX your comments to 617-753-3313.

REFERENCES

*These are the only ones of which the news has come to Harvard,
and there may be many others but they haven't been discarded.*

-Tom Lehrer, The Elements.

US ARMY

The U.S. Army Safety Center(USASC) Guide to Aviation Resource Management for Aircraft Mishap Prevention;

TM 1-1500-328-23, Aeronautical Equipment Maintenance Management Policies & Procedures

TB 43-180, Calibration and Repair Requirements for the Maintenance of Army Material;

FM 1-500, Army Aviation Maintenance

FM 10-68, Aircraft Refueling;

FM 10-70, Inspecting and Testing Petroleum Products

FM 21-60, Visual Signals;

DA PAM 738-750, The Army Maintenance Management System (TAMMS)

US Army TB 43-0142, Safety Inspection and Testing of Lifting Devices

MIL-HDBK-52B, Evaluation of Contractor's Calibration System

MIL-HDBK-200G, Quality Surveillance Handbook for Fuels, Lubricants, and Related Material

MIL-HDBK-2001B, Petroleum Operations

MIL-HDBK-844(AS), Aircraft Refueling Handbook

US NAVY

The Naval Safety Center(NAVSAFCE) 3750 P1, Safety Review Checklist;

OPNAVINST 4790.2F, The Naval Aviation Maintenance Program

NAVAIRINST 10340, Maintaining Quality and Limiting Contamination of Aircraft Fuels

NAVAIRINST 13101.1, Policy & Procedures for NAVAIR Controlled Aircraft Provided by the Government to Non-military Organizations;

US Navy NA 17-1-537, Aircraft Securing/Handling

NA 00-80T-96, Support Equipment Handling

NA 00-80T-109, Aircraft Refueling NATOPS Manual;

NA 00-80T-113, Aircraft Signals;

NA 06-5-502, Aircraft Refueling for Shore Activities

NA 06-20-2, Gas Cylinders (Storage Type);

NA 06-30-501, Oxygen/Nitrogen Cryogenics;

NA 11-100.1.1, General Use Cartridge Activated Devices (CADs);

NA 11-100.1.3, Cartridges and CADs

NA 13-1-6.4, Aviation Crew System Oxygen Equipment

NA 17-1-125, Ground Support Equipment Corrosion Control

NA 17-35MTL-2, Metrology Requirements List (METRL);

NA 17-35MTL-1, Calibration Manual;

NA 17-NCE-1, Navy Calibration Requirements Equipment List

NA 19-600-135-6-1, A/C Jacks: Preoperational Cards

NA 19-600-135-6-2,*A/C Jacks: Periodic Inspection Cards*;
NA 19-600-135-6-3,*A/C Jacks: Jack Tester*;
NFPA 407,*Aircraft Fuel Servicing*
NFPA 415,*Standard on Aircraft Fueling Ramp Drainage*
NFPA 1003,

US AIR FORCE

AFI 11-206, (formerly AFR 60-16)*General Flight Rules*;
AFI 11-207,*Flight Delivery of Aircraft*;
AFI 11-209,*Air Force Participation in Aerial Events*;
AFI 11-215, (formerly AFR 60-9)*Flight Manual Procedures*;
AFI 11-218,*Aircraft Movement on the Ground*;
AFI 11-301,*Life Support Program*;
AFI 11-401, (formerly AFR 60-1)*Flight Management*;
AFI 11-403,*Aerospace Physiological Training Program*;
AFI 13-201, (formerly AFR 55-2)*USAF Airspace Management*
AFI 13-202, (formerly AFR 55-5)*Overdue Aircraft*;
AFI 13-203 (formerly AFR 60-5)*Air Traffic Control*;
AFI 13-207, (formerly AFR 60-14)*Preventing and Resisting Aircraft Piracy (Hijacking)*;
AFI 13-212,*Weapons Range Management* (Formerly AFR 50-46);
AFI 21-101,*Maintenance Management of Aircraft*;
AFI 21-112,*Aircraft Egress and Escape Systems*;
AFI 32-1045,*Snow and Ice Removal and Control*;
AFI 32-4001, (formerly AFR 355-1)*Disaster Preparedness Planning and Operations*;
AFI 36-2212, (formerly AFR 60-1)*Flight Management*;
AFI 36-2243,*Cockpit/Crew Resource Management Program*;
AFI 44-120, (formerly AFR 160-23)*Drug Abuse Testing Program*;
AFI 91-202, (formerly AFR 127-2), *The US Air Force Mishap Prevention Program*;
AFI 91-211, (formerly AFR 127-1)*Air Force Guide to Mishap Investigation*;
AFI 91-301, (formerly AFR 127-12)*The Air Force Occupational and Environmental Safety, Fire Protection and Health (AFOSH) Program*;
AFI 91-404, (formerly AFR 127-3)*Hazardous Air Traffic Report (HATR) Program*;
AFI 121-101,*Foreign Object Damage (FOD) Prevention Program*
AFI 191-202,*Hazardous Air Traffic Report (HATR) Program*;
AFH 11-203, (formerly AFM 51-12)*Weather for Aircrews*;
AFPD 11-3, (formerly AFR 55-27) *Life Support, Aircraft Egress and Escape Systems*;
AFP 64-5,*Aircrew Survival*;
AFP 64-15,*Survival and Emergency Uses of the Parachute*
AFMCI 91-101, (formerly AFLCR/AFSCR 55-5)*Minimum Airfield, ARFF Services, and Hangar Fire Protection Requirements for Aircraft Contracts*;
AFR 127-15,*The Bird Strike Hazard Reduction Program*;
T.O. 00-20-7,*Inspection System, Documentation, & Status Reporting*
T.O. 00-25-172,*Ground Servicing of Aircraft and Static Grounding/Bonding (ATOS)*
T.O. 1-1A-15,*General Maintenance Instructions for Support Equipment*
T.O.-1-1B40,*Weight and Balance Data*
T.O.-1-1B-50,*Basic T.O. for USAF Aircraft Weight and Balance*;

T.O. 1-1-300, *Acceptance/Functional Check Flight and Maintenance Operational Checks*;
T.O. 32-1-2, *Use of Hand Tools*;
T.O. 32-1-101, *Use and Care of Hand Tools and Measurement Tools*;
T.O. 35-1-3, *Corrosion Prevention, Painting, & Marking of USAF Equipment*
T.O. 00-35D-54, *FOD Reporting*;
T.O. 42B-5-1-2, *Gas Cylinders (Storage Type) Use, Handling, & Maintenance*
AFMAN 91-201, *Explosives Safety Standards*;
AFM 177-111, *Tool Room Operation*;
AFOSH 127-100, *Aircraft Flightline Ground Operations and Activities*;
AFOSH 161-10, *Health Hazard Control for Laser Radiation*;

DoD

DoDI 6055.7, *Mishap Investigating, Reporting, and Recordkeeping*;
DoD Directive 7230.8, Feb 16, 1995, *Leases and Demonstrations of DoD Equipment*;
MIL-STD-45662A, *Calibration Systems Requirements*;
MIL-STD-980, *Foreign Object Damage (FOD) Prevention in Aerospace Products*;
ISO 10012-1, *Measuring Equipment*;
ANSI Z540-1(1994), *Calibration, Measuring and Test Equipment*;



DCMDN-OA

1 March 1996

MEMORANDUM FOR (Whom it May Concern)

SUBJECT: <_____>'sContractor's ProceduresApproval

<_____>'sContractor's Procedures (attached), have been reviewed and, if followed, are adequate for the protection of Government assets and the safe conduct of flight and ground operations in accordance with the Ground and Flight Risk Clause (and/or FlighRisk Clause) (DFARS 252.228-7001/7002).

<_____>'sContractor's Proceduresare approved effective immediately. This approval is effective for one year.

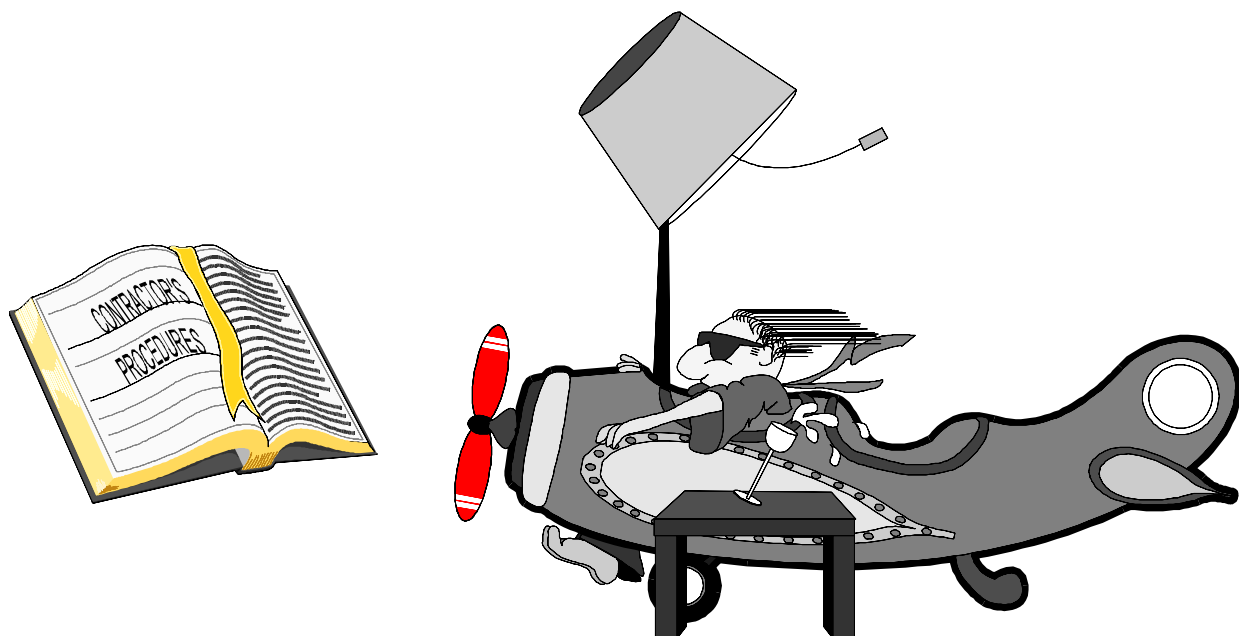
Contact this office at 617-753-4209 or DSN 955-4209 if there are any questions concerning this letter.

Government Flight Representative

Attachment

Cord: Aviation Maintenance Manager _____

Safety Specialist _____



<_____>'s

FLIGHT AND GROUND
OPERATIONS

CONTRACTOR'S PROCEDURES

CHAPTER 1

TERMS EXPLAINED

BEFORE PROCEEDING READ THE FOREWORD OF THIS GUIDE.

REQUIREMENT/BACKGROUND: This chapter is reproduced almost verbatim from 8210.1. Recommend contractors include all definitions in this chapter even if they do not pertain to operations on contract. Contractors may alter the definitions to more clearly identify the actual operations on contract. Further, contractors may make a statement at the end of certain definitions for operations that do not apply. Example:

1-12 Test Aircraft. Any aircraft used for research, development or test and evaluation purposes. THERE ARE NO TEST AIRCRAFT AT THIS FACILITY.

SECTION A - TERMS RELATING TO GOVERNMENT

1-1 Approving Authority The commander or designee of one of the following organizations having administrative responsibility for a particular contract facility in accordance with DLAH 4105.4:

- a. Commander, US Army Aviation Systems Command or Procuring Activity Major Command (MACOM).
- b. Naval Air Systems Command (NAVAIRSYSCOM).
- c. Air Force Heads of Contracting Activities (HCA) or their designee.
- d. Commander, Defense Contract Management Districts (DCMD).

NOTE: Under DLAD 5000.4 PART VI Chapter 4, Flight Operations, C.2., (The One Book), the Approving Authority for DLA administered contracts is the Contracting Administration Office (CAO) Commander. Usually this is the local DCMC Commander.

1-2 Government Flight Representative (GFR) That officer in aviation service (including operational and non-operational aviation positions) or Government civilian in aviation service to whom the approving authority has delegated responsibility for approval of contractor flights, Contractor's Procedures flight crewmember personnel and ensuring contractor compliance with applicable provisions of DLAM 8210.1, Vol. 1. The GFR for this facility is:

GFR: _____

Office symbol: _____

Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

E-Mail: _____

1-3 Procuring Contracting Officer (PCO) and Administrative Contracting Officer (ACO)

Individuals designated in accordance with the Federal Acquisition Regulation (FAR) and defined in FAR 2.101.

SECTION B - TERMS RELATING TO CONTRACTOR

1-4 Contractor. Any individual, corporation, or other entity whose personnel may operate aircraft for which the Government assumes at least some contractual liability for loss or damage to the aircraft. Under contract(s) _____, _____, _____, or _____, contractor refers to:

Contractor: _____

Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

E-Mail: _____

1-5 Flight Crewmember Any instructor/flight examiner, pilot, copilot, flight engineer/mechanic, or weapon system operator (ECMO, RIO, B/N, EWO and Defense System Operators), and other flight handbook identified crewmember when assigned to their respective crew positions to conduct any flight under the contract. The term "Aircrew" is a collective term which applies to all categories of personnel in a flight status either as crewmembers or noncrewmembers.

1-6 Flight Personnel (Noncrewmember) Personnel designated by contractor to perform a specific function while the aircraft is in flight; for example, technicians, observers, inspectors, systems engineers, and photographers.

1-7 Ground Personnel Personnel designated by the contractor to perform ground operations in support of flight operations, to include aircraft rescue and firefighting.

1-8 Requesting Official The Contractor Requesting Official is a member of the Company's first level of management (President, Vice President) or appointed designee (Director of Test and Evaluation, Director of Flight Operations, Chief Test Pilot) authorized to sign a request for GFR approval for qualification training of contractor personnel or for flight crewmember/ personnel. The Requesting Official is designated as:

Requesting Official: _____

Office symbol: _____

Address: _____

Phone: _____

Fax: _____

E-Mail: _____

1-9 Aviation Safety Official The individual assigned primary responsibility for developing and administering the contractor's aviation safety program. This individual should be a qualified flight crewmember with related aviation safety administration experience. The Aviation Safety Official is designated as:

Name: _____

Office symbol: _____

Address: _____

Phone: _____

Fax: _____

E-Mail: _____

1-10 Flight Operations Those aircraft operations where intent for flight exists for which the Government assumes at least some of the risk of loss or damage under the DFARS, Part 252.228-7001/7002, Ground and Flight Risk/Flight Risks. The clauses define "flight" as follows: "For

land based aircraft, 'flight' shall commence with a taxi roll from a flight line on the Contractor's premises." Additionally, a high speed taxi test is considered a flight operation for the purpose of this manual. (for seaplane and helicopter definitions see 8210.1, Vol. 1).

1-11 Ground Operations Those aircraft operations, which are not flight operations, for which the Government assumes at least some of the risks of loss or damage under the ground and flight risk clause of the contract. Specific operations include, but are not limited to, aircraft towing, subsystem warm-up/checkout, taxiing, engine runup or other operation of installed engines, and/or propeller(s) or rotor(s) (as appropriate), preflight/ postflight and operation of associated aerospace ground support equipment to include crash rescue operations and operation of any Ground Test Vehicle (GTV).

SECTION C TERMS RELATING TO AIRCRAFT

1-12 Test Aircraft Any aircraft used for research, development or test and evaluation purposes.

1-13 Production Aircraft Any aircraft being manufactured for use in the operational inventory including aircraft produced for a Defense Security Assistance Program or undergoing contractor maintenance or modification.

a. Preaccepted Aircraft. Any aircraft for which the DD Form 250, Material Inspection and Receiving Report, for a specific contract, has not been executed by the Government, but for which the Government has assumed some of the risk of loss, destruction, or damage.

b. Accepted Aircraft. Any aircraft for which the DD Form 250 for a specific contract has been executed by the Government.

1-14 Government-Furnished/Bailed or Leased Aircraft Any Government-owned aircraft provided to a contractor for use in conjunction with a specific contractual requirement.

(Note: As mentioned in the Foreword, a good description of bailed/leased aircraft can be found in NAVAIRINST 13101.1, *Policy & Procedures for NAVAIR Controlled Aircraft Provided by the Government to Non-military Organization*).

1-15 Type/Design Aircraft The type aircraft refers to the aircraft's functional role and is represented by a letter of the alphabet. The design of an aircraft is designated by a number. Examples of aircraft by type/design are for fighter aircraft the F-14, for cargo the C-135, for attack the A-6, for trainers the T-37, for bombers the B-1 and for helicopters the H-60.

1-16 Series Aircraft The alpha character following the type/design identification letter-number. Series denotes subsequent production or modification of the same type/design aircraft. Examples of type/design/series identification are the F-~~14~~ and the F-14~~D~~, the C-135~~A~~ and the C-135~~B~~, or the A-6~~A~~ and the A-6~~E~~.

1-17 Mission of Aircraft Mission is denoted by the first letter when two letters are used to identify type/design aircraft. The first letter is used to identify the normal mission role of the

aircraft. Examples of mission/ type/design are for reconnaissance aircraft RF-4C; for tanker aircraft KC-135R; for electronic warfare aircraft EA-6B; for cargo helicopters, the CH-47.

1-18 Army Standard Aircraft Those aircraft listed in AR 700-138.

1-19 Army Nonstandard Aircraft and Contractor Furnished Aircraft Any aircraft not listed in AR 700-138 plus aircraft furnished by the contractor (Turnkey operations).

SECTION D - TERMS RELATING TO FLIGHTS

1-20 Sortie. *For the purpose of meeting the currency and qualification requirements of DLAM 8210.1*, a sortie is defined as a flight of 30 minutes or more in which the crewmember occupies their primary crew station for the entire flight and performs all normal crew duties to include preflight and postflight.

1-21 Experimental Test Flights Flights that are conducted to determine or demonstrate critical operating characteristics of an aircraft. These flights often involve greater than normal risk. These include but are not limited to:

- a. Initial flights of a new mission, type, design or series aircraft, high angle of attack tests, flutter and loads tests, critical stores separation tests, and carrier suitability tests.
- b. Flights to determine or expand flight or propulsion system envelopes.
- c. Flights to initially determine the performance, flight characteristics, and handling qualities.
- d. Flights of experimental and research aircraft.
- e. Flights of aircraft whose flight characteristics may have been altered by configuration changes.
- f. Initial flights of the first production aircraft of a new mission, type, design or series.
- g. Initial flights of the first of those aircraft which have undergone "major modifications" as determined by the Program Manager.
- h. Component development flights where failure of the test component would make the flight hazardous in nature and/or involve greater than normal risk as jointly determined by the GFR and the Program Manager.

1-22 Engineering Test Flights

- a. Subsystem development flights (for example, autopilot, fire control, bombing/navigation systems).

b. Component development and reliability flights not included under paragraph 1-21h, above.

c. Flights where the aircraft serves as the vehicle carrying the item to be checked (for example, electronic countermeasures stores, checking a radar system, or firing of a missile within an established envelope).

1-23 Check Flights Flights to determine compliance with contractual requirements, including:

a. Any flight performed to accept or check new aircraft production (Acceptance Check Flight ACF).

b. Any flight performed to accept or check accomplishment of depot maintenance, contract maintenance, or modification (ACF or FCF as applicable).

c. Any flight performed to determine whether an aircraft or its various components are functioning according to predetermined specifications when subjected to the flight environment (Functional Check Flights - FCF).

d. Maintenance Test Flight.

(1) Any flight performed to accept or check accomplishment of depot maintenance, contract maintenance, or modification on U.S. Army aircraft.

(2) Flights performed to determine whether an aircraft and its various components are functioning according to predetermined specifications while subjected to the flight environment.

ADDITIONAL INFORMATION: The basic USAF tech order for check flights is T.O. 1-1-300, *Acceptance/Functional Check Flight and Maintenance Operational Checks*.

1-24 Support Flights These include:

a. Photographic.

b. Chase/pace.

c. Rescue and Recovery.

d. Target or target towing.

e. Aircraft delivery.

f. Demonstration flights conducted according to AR 95-1, Navy OPNAVINST 3710.7 series, or AFR 60-18 (superseded by AFI 11-209, *Air Force Participation in Aerial Events*).

ADDITIONAL INFORMATION: All DoD/contractor aircraft lease agreements must comply with DoD Directive 7230.8, dated February 16, 1995. *Leases and Demonstrations of DoD Equipment*. This DoD Directive requires the lessee or loan recipient to pay all incremental costs of DoD personnel accompanying the equipment, including food, lodging, and local transportation. The lease writer should explicitly state whether the contractor should be held to strict compliance with DLAM 8210.1, Vol 1, or something less, such as limited to flight approvals, site-surveys, etc. Although DLAM 8210.1 applies to contracts where the Government assumes risk, the lease writer may make compliance with standard operating procedures (i.e. 8210.1) a precondition for the lease approval. This precondition is quite common. Compliance with 8210.1 would not automatically place the risk of loss on the Government's shoulders. Compliance with 8210.1 in this case only improves the probability of the aircraft returning to the DoD unscathed.

g. Severe weather evacuation flights conducted according to AR 95-87, OPNAVINST 3730.3 series, AFR 55-4, or appropriate overseas command directives. NOTE: AFR 55-4 is out of date and unavailable. Refer to AFI 32-4001 Disaster Preparedness Planning and Operations for guidance on this subject.

- h. Cargo and/or personnel transport flights. This includes flights of an emergency nature.
- i. Aircrew evaluation, training, and proficiency.
- j. Product or mission support flights as directed by the services.

BLANK

CHAPTER 2

GOVERNMENT FLIGHT REPRESENTATIVE

2-1 GFR Designation The approving authority designates a GFR for <_____> facilities where the Government has assumed some of the risk of loss for aircraft. The approving authority may also designate an alternate GFR for <_____>'s facility. <_____> shall be provided and shall maintain an informational copy of all applicable GFR letters of appointment.

2-2 GFR Cognizance The GFR having cognizance of <_____>'s facility approves, in writing, flight crewmembers, qualifications training, and ~~the~~ Contractor's Procedures <_____> SHALL NOT conduct any operation for which the Government has assumed some of the risk of loss without approved Contractor's Procedures <_____> SHALL NOT conduct any flights for which the Government has assumed some of the risk of loss without GFR approval of the crewmembers, noncrewmembers and the flight itself. Subsequent to approval, the GFR will notify <_____>, in writing, with a copy to the ACO, of deficiencies in the Contractor's Procedures which <_____> will correct within a reasonable time.

2-3 GFR Responsibilities The GFR is responsible for surveillance of all <_____> aircraft flight and ground operations involving Government aircraft and other aircraft for which the Government, by contract, assumes at least some of the risk of the loss. All flights, and procedures for ground operations of installed engines and/or propeller(s), engaging of rotors, taxi, and towing of Government aircraft conducted by <_____> are subject to final approval by the GFR. If <_____> employees do not act in accordance with the Contractor's Procedures prescribed in the contract, test plans, these Contractor's Procedures or other applicable directives, or through their actions safety is jeopardized, the GFR may withdraw approval of the flights and/or Contractor's Procedures

2-4 Contractor's Procedure Review Requirements <_____> will give the GFR a copy of these Contractor's Procedures for review to ensure currency and compliance. Reviews will be conducted at least every 12 months and within 90 days of a change of the primary GFR (review cycle may exceed 12 months in this case). <_____> keeps written records of the review dates and action taken on ~~GFR~~ Contractor's Procedures reviews. These records will be maintained for at least 1 year. The current Contractor's Procedures approval letter is found in the beginning of this manual.

BLANK

CHAPTER 3

FLIGHT OPERATIONS PROCEDURES

SECTION A - PREPARATION OF CONTRACTOR'S PROCEDURES for Flight Operations

REQUIREMENT/BACKGROUND: The purpose of this paragraph is to require the contractor to prepare a set of Contractor's Procedures that govern their operations for which the government assumes liability that are separate from those that are used for their other general operations. The intent of this is to have a specific set of Contractor's Procedures that cover the specialized requirements expected by the services in operating their aircraft. It also serves to eliminate confusion with other company procedures and give the GFR and contractor a single-source document for enforcing specific procedures. This paragraph also states that the GFR may assist in developing Contractor's Procedures but it is the contractor who must actually write their Contractor's Procedures. This is intended to provide the contractor with the GFR's technical expertise but not put the burden of preparation on him/her.

3-1 Preparation. These Contractor's Procedures were written by:

These specific, written Contractor's Procedures are separate and distinct from the company's industrial procedures. They describe aircraft ground and flight operations at all operating facilities where aircraft are operating under <_____> contracts with the DoD when the Government is assuming some or all of the risk of loss. The Contractor's Procedures describe the <_____> processes for ensuring that employees only perform duties they are qualified for or authorized to perform. <_____> will review the Contractor's Procedures each year prior to the Annual Flight Operations and Specialized Safety Survey. All changes will be approved by the GFR. Note: The GFR may assist but will not actually prepare these Contractor's Procedures.

SECTION B - CONTENT OF CONTRACTOR'S PROCEDURES

REQUIREMENT/BACKGROUND: DLAM 8210.1, Vol. 1., clearly states that the following areas must be addressed as a minimum to safeguard Government aircraft. When no other specific guidance is mentioned in contract, these minimum areas still must be addressed, but not necessarily to a particular published standard.

In those cases, the GFR determines if the Contractor's Procedures are adequate, but, can only enforce reasonable requirements. You may wish to use the following litmus test for "reasonable": If a DoD organization were performing the same operation on the aircraft, what procedures would they follow? The contractor should follow similar procedures.

The purpose of this section is to describe how the contractor obtains approval for flight activities. This includes specific procedures for obtaining GFR approval. It should describe the

type of flight planning facilities, flight areas, test plan procedures, safety limitations, mixed crewmember operations, minimum crewmember requirements, and designation of pilot in command. A statement identifying all contractor personnel authorized to request flight approval should also be included. This section also addresses the approval period which the GFR may allow.

ADDITIONAL INFORMATION: AFI 36-2212 (Formerly AFR 10-1) *Flight Management* should be consulted when developing this section for Air Force contracts.

3-2 Flight Management. PROCESS OWNER:_____.

a. Contractor facilities for flight planning. Facilities for flight planning are provided at:

This flight planning room will not be used for any other purpose that can possibly interfere with mission planning, and should remain accessible to crews at all times that flight operations are being conducted. Everything necessary to prepare for each flight must be available to the crews. The flight planning room will contain the following items and information:

- (1) Current flight information publications.
- (2) Flight Crew Information files (see para. 3.4).
- (3) Local flying area map indicating the approved test flight area.
- (4) Computer terminal access to FAA DUAT (or some other method of obtaining current weather).
- (5) Telephone with instructions for contacting the FAA Flight Service Station (or some other method of filing flight plans).
- (6) Flight planning forms (FAA Form 7233, Military DD-175, DD Form 1801 or ICAO equivalent).
- (7) Military Weather Briefing Form DD 175 (military transient crews)(or equivalent).
- (8) Notices to Airmen.
- (9) Performance Planning Cards for each type aircraft (or some other approved method for determining performance data).
- (10) Current Airman Information Manual/Federal Aviation Regulations.
- (11) Weight and Balance forms.
- (12) Crew/Mission Briefing forms.
- (13) Current, approved copy of these Contractor's Procedure.
- (14) Hazard reporting forms.

REQUIREMENT/BACKGROUND: Approval of a flight is one of the most important duties of a GFR. The procedures below serve as examples of different methods a GFR can use to ensure enough lead time is available to ensure the contractor is truly prepared for flight. In all cases, never sign a flight approval unless you are sure everyone included on the flight approval form is current and qualified to fly, the contractor will be flying according to approved Contractor's Procedures, you know the mission profile (either canned, standard mission, or point to point), and

the flight approval is for a specified time period not to exceed one month. Normally, flight approvals should be signed individually ~~for each flight~~. Multiple or extended time period flight approvals should be issued only under ~~extraordinary~~ circumstances and only for the minimum time period consistent with mission requirements. All flights will be requested on DLA Form 644 (Appendix C, Fig. 1.) (Other GFR approved forms may be used, including computer generated versions, however substitutes must contain at least the same information found on the 644). A minimum of ten days leadtime should be utilized in order to avoid situations where the GFR may not be available to approve the flights. The leadtime should preclude any interruption to flight operations.

b. Procedures for obtaining GFR approval for all flights. The Director of _____ will submit the request for flight approval using DLA Form 644 (Appendix C, Fig. 1.) no later than ten days prior to the anticipated flight. The Director of _____ will develop a schedule well enough in advance to ensure ten day prior notification. This will preclude delays in the approval process. The Ground and Flight Risk Clause does not apply for any flight that proceeds without GFR approval, and in this case <_____> would be assuming liability for the aircraft, crew, and flight. A separate flight approval request will be submitted for each flight. If a GFR approved 644 equivalent is used which is organized as a daily flight schedule, a single request listing the day's flights with appropriate information for each flight, may be submitted. If the GFR is not resident, currency data for each crewmember and non-crewmember will be submitted along with the 644 (see Appendix C, Figs. 2 & 3. for example format).

(1) All flights will be conducted by <_____> flight crewmembers approved by the GFR (in accordance with the procedures described in chapter 6) in the specified flight area, route, or course listed on the DLA Form 644.

(2) All flights will be performed according to the GFR approved flight profile (GFR must have copy) annotated on the flight approval form. The Director of _____ will ensure all crewmembers are current and qualified to perform the duties described in the flight approval request form prior to submitting the form to the GFR. Experimental Engineering Test Flight series will be approved individually by the GFR. For new experimental flight programs, the GFR will be notified not later than six months from the expected first flight. This will allow the GFR adequate time to determine the need for any contractor pilot qualification/ training requirements. The initial DLA Form 644 will be forwarded to the GFR prior to fifteen days from the initial flight.

ADDITIONAL INFORMATION: These type flights demand greater care in the approval process. The Program Office should be intimately aware of all aspects of the test plan; speak with them directly if there is any question about the safety of test plans.

(3) All flights will be conducted within safety and engineering limitations of the aircraft.

(4) All flights WILL BE PERFORMED IN ACCORDANCE WITH THESE APPROVED CONTRACTOR'S PROCEDURES and in the case of experimental or engineering test flights, the Government approved flight test plan.

ADDITIONAL INFORMATION: (The following is excerpted from DLAD 5000.4, Chapter 4 (the “One” Book) *Flight Operations*)

B. 1. . . Government Flight Representatives (GFRs) are the leaders in the surveillance of contractor flight operations. We rely on their professional aviation background and training to provide them the tools to make critical decisions about the safety and effectiveness of each contractor flight operation. GFRs and the Aviation Program Team (APT) are the on-site eyes and ears (whether resident or nonresident). We depend on them to know on an everyday basis, what is going on under a DLA administered contract involving aviation activities.

B. 5. The APT is the functional body of experts utilized to monitor on-site contractor flight related operations and perform contract management/ administration. The APT consists of the GFR, Specialized Safety Specialist, and an Aviation Maintenance Manager. Matrix support for the APT comes from the Administrative Contracting Officer (ACO), Program Integrator (PI), and Quality Assurance Representative (QAR), and other technical representatives as required. The GFR is the team leader since the APT is formed to accomplish delineated GFR duties.

C. 4. (4) The GFR:

(a) Should know the objectives and profile for each contractor flight as well as the currency and qualifications of the flight/ground crews involved in the contractor's flight related operations on a near-daily basis.

(b) Approves contractor flights IAW approved Contractor's Procedures and references A1 and A2. (DLAM 8210.1, Vol 1 & Vol 2) Contractors are required to prepare flight schedules and obtain GFR approvals with sufficient lead time to preclude interruption to operations. For normal operations, a GFR approval will be executed for each individual contract flight. This best keeps the GFR fully informed on those contractor aviation-related operations for which he has responsibility. Multiple or extended time period flight approvals may be issued under extraordinary circumstances and for the minimum time period consistent with mission requirements. Where the primary GFR cannot physically be available for an extended period of time, an alternate GFR, fully up to speed on the contractor's operations, should be available. In all cases, flight approvals may be issued for no more than 1 month.

(5) If extraordinary conditions exist, production test flights that are flown in accordance with government approved acceptance documents and are routine in nature following a standard flight profile, can be approved for a one month period. The clearance covers any number of flights required, subject to the time limitation on the flight release. However, the above restrictions apply. See paragraph (6) below for further guidance. Test Flights and Support Flights normally require individual approval. The GFR, under extraordinary conditions, may approve identical flights as a group; however, the period is not to exceed one month.

(6) GFRs may approve multiple flights (i.e. weekly, biweekly, monthly) however, the GFR must be kept informed of the daily/weekly flight schedule. If <_____> is operating on an approved multiple flight schedule, daily updates will be E-Mailed or Faxed to the GFR, prior to each day's flights. The updates will include DLA Form 644 items 1 or 2, 3, 4, 5, 6, 7, & 8, for

each flight anticipated that day (see Appendix C, Fig. 4a.). At the conclusion of each day's flying or prior to the next day's flight(s), DLA Form 644 items 11, 12, & 13 will be updated to the GFR (see Appendix C, Fig. 4b).

c. Flight Authorization. The Director of _____ is responsible for the management of all flight activities at <_____. The Director of _____ is responsible for obtaining GFR approval for all flights. In the absence of the Director of _____, _____ may request GFR approval of flights.

The following Procedure is a good example of the many different ways a contractor may address a particular Procedure. In this case aircraft status is the deciding factor in determining the pilot in command. This may work well for production type contracts, but maybe not so well for experimental test flight contracts. In any case some decision must be made in writing, in the procedures, prior to approving this portion of the Contractor's Procedures.

d. Procedures governing the use of mixed flight crewmembers (contractor and Government) in multiplace aircraft or formation flights. Like every flight, all mixed flight crews require the joint approval of the Director of _____ and the GFR. The pilot in command is normally determined by the status of the aircraft. After Government acceptance or during a Government acceptance flight, the Government pilot will be the pilot in command. For flights prior to acceptance, the <_____> pilot is the pilot in command. Deviations from these norms will be approved by the Director of _____ and annotated on the 644. Identical check lists will be used on mixed flight crew flights. Regardless of who is pilot in command, all flights will be flown in accordance with GFR approval Contractor's Procedures

e. Procedures for designating pilot-in-command of aircraft with more than one pilot and for formation flights, to include mixed flight crewmembers (contractor and Government). The most experienced/qualified pilots will be designated as pilots in command (PIC) for each category of aircraft. The PIC will be designated on the Mission Briefing Form, and will be responsible for signing the Aircraft Daily/Preflight Form. The PIC for mixed crews will be designated in accordance with paragraph 3.2d above. The Flight Lead will be designated and briefed during the preflight briefing and will have overall responsibility for the flight's conduct.

f. Minimum crew requirements for the various types of flight activities. Flight crew requirements vary as a function of the mission and the design/ series of aircraft. The minimum crew will be prescribed in the Aircraft's Operating Instruction Handbook (Operator's Manual). Deviations from the Aircraft Operating Instruction with respect to minimum crew required will be coordinated with the Director of _____ and approval by the GFR.

g. Special procedures when (Non-DLA) DoD crewmembers fly. When DoD crewmembers fly on DLA administered aircraft, attach, to the DLA Form 644, a signed statement from the crewmember(s)' commander that certifies the crewmembers(s) are current and qualified to fly the planned mission profile. When a DoD crew is picking up an aircraft after it has been DD 250'd to the gaining unit, place a copy of the commander's statement in the flight authorization file. This

will ensure the gaining unit has sent a current and qualified crew, and they are authorized to accept the aircraft.

REQUIREMENTS/BACKGROUND: The purpose of this paragraph is to define the maximum crew duty day and the minimum crew rest requirements.

ADDITIONAL INFORMATION: ~~AFI 11-206~~ (Formerly AFR 60-16) *General Flight Rules* should be consulted when developing this section for Air Force contracts.

3-3 Aircrew Duty and Rest LimitationsPROCESS OWNER:_____.

a. The following aircrew duty period restrictions apply to all <_____> flight crewmembers and noncrewmembers:

(1) The crew duty period begins when an individual reports for work (either flight or administrative duties) and ends when the engines are stopped at the end of a mission or series of missions.

(2) The basic crew duty period will not exceed 12 consecutive hours. An extension to the crew duty day of not more than 2 hours may be requested. The Director of _____ will forward the request to the GFR who may approve the extension on a ~~case~~ ^{case}-by-case basis.

(3) Support flights in dual-piloted aircraft with an operative autopilot installed and used have a maximum crew duty period of 16 consecutive hours.

(4) When flying other than support flights, pilots in single-piloted helicopters are limited to a maximum of 6 flying hours in a 12-hour crew duty period.

b. The crew rest period is defined as the non work period immediately preceding the crew duty period. This period will be a minimum of 12 hours of which at least 8 hours is allowed for uninterrupted sleep.

ADDITIONAL INFORMATION: The well-recognized effects (i.e., intoxication and hangover) are detrimental to safe operations. Consumption of any type of alcohol is prohibited within 12 hours of flight planning. Adherence to the letter of this rule does not guarantee a crewmember will be free from the effects of alcohol after a period of 12 hours. Alcohol can adversely affect the vestibular system for as long as 48 hours after consuming, even when blood-alcohol content is zero. Special caution should be exercised when flying at night, over water, or IMC. In addition to abstaining from alcohol for 12 hours prior to flight planning, flightcrews shall ensure they are free of hangover effects prior to flight. Detectable blood alcohol or symptomatic hangover shall be cause for grounding of flight personnel and the restriction of the activities of aviation ground personnel.

REQUIREMENT/BACKGROUND: This section describes the requirements for maintaining various flight operations related publications. This includes a Flight Crew Information File (FCIF)

and Government technical manuals. For those contractors without aircrews an FCIF should be maintained to relay important information to Government crews picking up aircraft.

ADDITIONAL INFORMATION: AFI 11-215 (Formerly AFR 60-~~9~~*Flight Manual Procedures*) should be consulted when developing this section for Air Force contracts.

3-4 Publications PROCESS OWNER:_____.

a. Flight Crew Information File (FCIF). The <_____> flight crew information file shall be maintained by the _____ (e.g. Flight Operations Clerk). Certifications of review will be maintained in the information file. Section I will be reviewed prior to flight. Crewmembers will sign off they have read all items in Section I prior to flight. Sections II and III will be reviewed semiannually. Interim changes or revisions to the approved flight and ground operating Contractor's Procedures and aircraft operating manuals will be included in the FCIF. The information file will be organized as follows:

(1) Section I. Items of a temporary nature which affect the local flying operations (i.e., safety-related messages, reports, airfield restrictions, ATC matters, changes/revisions to approved Contractor's Procedures).

(2) Section II. Items of a permanent nature which affect the local flying operations (i.e., flight profiles, minimum fuel requirements, and letters of agreement).

(3) Section III. Permanent directives which include Contractor and Government regulations (e.g., Contractor's Procedures).

(4) A copy of current Aircraft Operator's Manual, Checklist, and Flight Limitations.

b. Flight Publications.

(1) Only current, up-to-date publications will be used for flight planning and flight/ground operations onboard the aircraft. These publications include, but are not limited to: flight information publications, aircraft operator's manual and checklist, and aircraft technical manuals.

(2) The Director of _____ is responsible for ensuring all publications are current. Only current publications will be used prior to and during flights. Publication updates will be posted as soon as possible, but no later than prior to flight.

(3) Government technical manuals and checklist will be utilized when available. The contractor can obtain military technical manuals, changes, and supplements through Government channels, specifically, the program office. Note: To obtain FLIP documents or anything else from the Defense Mapping Agency (DMA) an account must be established through one of the Services. To establish an account call:

(a) Air Force: DSN 787-7136 or commercial 513-257-7176.

(b) Army: DSN 570-8156 or commercial 717-267-8156.

(c) Navy: DSN 580-5908 or commercial 216-522-5908.

(d) DLA: DSN 284-6132 or commercial 703-274-6134.

Once an account is established, a DMA catalog can be ordered through DMA, Attn.: PMSR Catalogs, 6001 MacArthur Blvd., Bethesda, MD 20816-5001.

(4) If Government manuals are not available, the appropriate manufacturer's manuals and checklist will be utilized. The Director of _____ is responsible for ensuring that changes and supplements are promptly posted in the basic technical publications so that personnel have available the most current technical data.

(5) For Federal Aviation Administration aircraft, the contractor will maintain all applicable air worthiness directives and service bulletins for review.

(6) Mixed aircrews will use identical checklist for all ground and flight operations.

(7) For those operations where no Government or commercial checklist is available, locally devised checklists may be used only when such deviation is authorized by the appropriate procuring activity.

REQUIREMENT/BACKGROUND: This section requires the contractor to develop procedures to ensure only current and qualified personnel are allowed to conduct flight operations. The details of the requirements in this section can be found in later chapters.

3-5 Qualifications and Training PROCESS OWNER:_____.

a. The contractor's flight crewmember qualification process. These procedures are described in chapter 5 of this guide.

b. Maintenance of qualification and training folders for flight crewmembers and noncrewmembers. These procedures are described in chapter 4 of this guide.

c. Inspection of flight crewmember training and records folders. These procedures are described in chapter 4 of this guide.

d. Flight crewmember qualification for varying flight conditions and flight activities. These procedures are described in chapter 5 of this guide.

e. Criteria for standardization and evaluation of flight crewmembers. These procedures are described in chapter 7 of this guide.

f. Procedure for requesting Government approval of qualification training. These procedures are described in chapter 6 of this manual.

g. Procedure for requesting approval of contractor flight crewmember. These procedures are described in chapter 6 of this manual. When circumstances dictate, the GFR may authorize some contractor flight crewmembers to be qualified and current in more than one aircraft after review of individual qualifications as they relate to the various aircraft to be operated. Contractor's flight crewmembers who are qualified in other than military aircraft will have their records so noted, but approval for such additional qualification will not be the responsibility of the GFR. Generally, the operation of civil aircraft will not contribute to currency and proficiency requirements for the operation of Government aircraft unless the civil and Government aircraft are similar in handling qualities and have basically the same engineering systems (fuel, electrical, hydraulic, etc.), as determined by the GFR. A civil aircraft may be counted as ~~the~~second aircraft for maintaining the currency requirements of chapter 7, provided it meets the requirements of paragraph 7-1, as determined by the GFR.

h. Documentation of qualification and experience (e.g., certificates, licenses, logbooks, permits, instrument ratings, etc.). These procedures are described in chapter 4 of this guide.

i. Procedure and criteria for selecting and designating contractor flight crewmember instructors, flight examiners, etc. These procedures are described in chapter 6 of this guide.

j. Procedure for termination of approval. These procedures are described in chapter 6 of this guide.

REQUIREMENT/BACKGROUND: This section addresses the heart of flight and ground safety. Regardless of the type of work being performed, whenever the Ground and Flight Risk (or Flight Risk) Clause is in effect, the contractor must have a safety program. This section describes the elements of the safety program.

|3-6 Safety. PROCESS OWNER:_____ This area addresses:

a. <_____>'s written mishap prevention program which includes:

(1) CONSOLIDATED SAFETY COUNCIL. The purpose of the Consolidated Safety Council (CSC) is to promote a program of mishap prevention in flight, ground, industrial, and explosive activities. The CSC is also responsible for mishap prevention planning. The Consolidated Safety Council is made up of safety, engineering and industrial engineers/specialists.

(a) Participants (Standing Committee):

<_____> Safety Officer (Chair).

Director of _____.

Manager Quality Assurance.

Aviation Safety Official.

Flight Engineering Manager.
Explosive Handling Specialist.
FOD Manager.
Industrial Safety Specialist.
Hazardous Materials Manager.
Director of Flight Test/Chief Pilot.
Chief of Aircraft Rescue and Fire Fighting (ARFF).
Government Flight Representative.
Government Specialized Safety Specialist.
Government Flight Safety Officer (FSO).

(b) General: Meetings will be scheduled as required to support safety program requirements, but not less than <monthly, quarterly>. The Consolidated Safety Council Chair (or as delegated) is responsible to schedule, plan meetings, and publish minutes.

(c) Inputs: The Consolidated Safety Council will accept action items, provide safety expertise, implement changes as required, and operate as a focal point for safety with the company. Members of the council individually will provide the method to interface with their respective company organization/ department.

(d) Recommendations and Safety Assessments: After the cause and recommended solution for a problem is determined a corrective action memo shall be written. Recommendations from the Consolidated Safety Council shall direct resolution activities specific to safety.

(2) Regular flight safety surveys.

(a) The <_____> Safety Officer or his designee will coordinate/participate in safety surveys at least <monthly, quarterly, semiannually>. If possible, the surveys will be conducted with representatives from Flight Test, Design Engineering, Manufacturing, Quality Assurance and Government Safety. The <_____> Safety Officer may be supported by an external safety audit team. Findings, recommendations, and follow-up actions will be recorded in writing and maintained for review.

(b) Functional managers, supervisors, and individuals identify hazards by evaluating the work environment and job tasks. Safety and medical staffs and fire-protection personnel provide technical assistance. It is essential that people in the workplace identify equipment and situations that place them at risk.

(c) Hazard abatement action. The proper way to eliminate a particular hazard is often difficult to determine, and alternatives are limited by time and cost. After considering all factors, choose the alternative that contributes the most to overall mission accomplishment. Consider these three categories of corrective actions:

i. Planning and Engineering. Try to eliminate hazards as early as possible in the planning and design stages when you can make changes to hardware or operations changes at a small cost. Continually review plans, specifications, drawings, and plans to identify and eliminate hazards until the equipment or facility is operating. Eliminate hazards identified after an item is deployed by modifying the item or installing protective devices or guards. The supervisor, with safety staff help, does a job safety analysis (JSA) and operational hazard analysis (OHA) to ensure worker, equipment, and work environment compatibility.

ii. Procedural Actions. Develop procedures or restrictions to minimize risk if planning or engineering actions cannot be used to eliminate hazards. If necessary, impose restrictions such as operational limits, frequent inspections, protective equipment, or stopping the operation until corrective action is taken.

iii. Personnel Actions. People work more safely and effectively when they are properly trained and motivated. Supervisors at all levels need to keep their people involved, through quality processes, in risk management.

ADDITIONAL INFORMATION: Conduct regular flight safety surveys (at least semiannually) using the following references as guidelines: (1) Army *The U.S. Army Safety Center (USASC) Guide to Aviation Resource Management for Aircraft Mishap Prevention* (2) Navy - *The Naval Safety Center (NAVSAFCE) 3750 P1 Safety Review Checklist* (3) Air Force - AFI 91-202 (formerly AFR 1272), *The US Air Force Mishap Prevention Program* including Major Command (MAJCOM) supplements; and (4) DLADLAM 8220.3, *Flight Operations and Flight Safety Manual*. A sample checklist is included in Appendix R.

(3) Safety Publications: The <_____> Safety Officer is responsible for maintaining a program of obtaining and utilizing current publications, brochures and periodicals available from government or industry sources pertaining to flight safety including: Flight Fax, Aviation Safety News, Fire Prevention Digest, along with other safety publications in the flight planning room.

(4) Published safety responsibilities. Notwithstanding other responsibilities mentioned in these Contractor's Procedures, the following responsibilities are defined:

(a) The main objective of <_____> Safety is mishap prevention. All employees, and in particular all managers, are required to observe and perform to prescribed procedures and practices within their particular areas of work.

(b) The <_____> Safety Office is responsible for accomplishment and oversight of all Flight Safety Contractor's Procedures listed herein. Subordinate and/or supplemental responsibilities may be provided by the Contractor and/or Government. The Director of _____ shall designate a qualified pilot as the Aviation Safety Official responsible for flight operation safety. The <_____> Safety Program has the primary responsibility for ensuring an effective flight safety effort is maintained to minimize personnel

injuries and aircraft damage. This effort requires a working interface and a working knowledge of company operations to ensure hazard identification and subsequent risk reduction.

(c) The <_____> Safety Officer will identify real and potential safety hazards and hazardous trends, and notify the Director of _____, flight crew, and Government Flight Representative, if required. In addition, the following procedures are applicable to all experimental and engineering test flights conducted by <_____>:

i. Preflight: The <_____> Safety Officer or his/her designee will attend preflight briefings to ensure there are no open hazards affecting flight and to review new identifiable hazards introduced due to aircraft configuration and/or anticipated test conduct. It is the <_____> Safety Officer's responsibility to question extraordinary test conditions, crew qualification, currency, aircraft limitations, and current Government Flight Release, or any other limiting factor that might adversely affect the safe conduct of the proposed flight. The <_____> Safety Officer will review problems associated with the previous day's testing to ensure that no safety related problems are unresolved. If the <_____> Safety Officer is not satisfied that all safety related matters have been addressed, he will recommend to the Director of _____ that flying be suspended until such time as these matters have been resolved.

ii. During Flight: The <_____> Safety Officer or his designee will monitor the progress of the test flight so that he will be aware of problems/anomalies as they occur. It is not necessary for the <_____> Safety Officer to be in direct communication with the test aircraft. However, the <_____> Safety Officer should be available to the Director of _____ in the event serious anomalies and/or incidents occur.

iii. Post-Flight: The <_____> Safety Officer or designee will attend post-flight debriefings. Any problems/anomalies encountered during the flight can be discussed. Participation in these post-flight briefings is essential since invaluable information can be obtained from test pilots as well as technology experts and other flight test personnel. Unresolved safety recommendations will be submitted to the Director of _____.

(d) Ground Safety: The <_____> Safety Officer or his/her designee will act as the primary point of contact with Ground Safety. He/she will ensure that appropriate Ground Safety documents are available and that applicable Ground Safety requirements ~~and~~ Contractor's Procedures are being followed by the Company. During inspections conducted by Government safety personnel, the <_____> Safety Officer or his/her designee will accompany the inspectors, provide assistance/explanations as required and upon receipt of the inspection results, expedite and document corrective actions.

(e) The Aviation Safety Official or his/her designee will assist, advise and represent the <_____> Safety Officer in all matters pertaining to Aviation Safety. His/her duties are to:

i. Maintain close liaison and advise the Director of _____ and the <_____> Safety Officer.

ii. Observe flight and ground operations to detect and correct unsafe practices.

iii. Advise and assist aircraft mishap/accident investigations.

iv. Review aircraft mishap reports and recommend corrective action.

v. Establish, maintain and rehearse a current pre-mishap plan.

vi. Inspect communication equipment, navigation aids, and other electronic aids to aircraft operation to ensure required operational condition.

vii. Inspect physical condition of airfield for hazards, recommend improvements and post all known hazards.

viii. Maintain ready-reference files of aviation safety literature.

ix. Review aviation flight records to ensure compliance with safety procedures.

x. Conduct regularly scheduled monthly flying safety meetings.

(5) Hazard, mishap reporting, and correction procedures.

(a) The <_____> Safety Officer shall be responsible for the development and implementation of the Aircraft Incident Reporting and Tracking System. The <_____> Safety Officer shall maintain an incident log and ensure that notification of incidents is provided both within and external to the Company as required by Government regulation and Company procedures.

(b) The <_____> Safety Officer shall maintain the Master <_____> Incident File. Additionally, the <_____> Safety Officer is responsible to update the <_____> incident file copies and ensure adequate and proper distribution.

(c) Post Mishap Requirements: Pilots involved in aircraft mishaps causing injuries or substantial damage to aircraft will complete the following prior to next flight in an aircraft (note: systems malfunctions confined to the single system, e.g. engine fire or loss of hydraulics, are not considered mishaps for the purpose of the following two sub-paragraphs.):

i. Medical examination by an approved FAA (or host nation equivalent) medical examiner.

ii. Ensure toxicological testing of personnel involved in aircraft flight and flight-related mishaps are promptly accomplished. As a minimum, flight crewmembers involved in all flight and flight-related mishaps in which an aircraft or missile is destroyed; property damage is expected to exceed \$200,000; five or more personnel are inpatient hospitalized; or any permanent total or partial disability is sustained will be tested. Those individuals whose actions or inactions, in the GFR's or Director of _____'s judgment, may have been factors in the mishap sequence will be tested.

ADDITIONAL INFORMATION: Testing should include a BAT (Blood Alcohol Test) and Urinalysis for Barbiturates/Narcotics. Testing of crewmember casualties should include a Complete Blood Scan (CBS) checking Hemoglobin, Hemicrate (HCT), Glucose, Carbon monoxide, lactic acid level(indicates central nervous system hypoxia), Hydrogen cyanide (indicates premortem exposure to combustibles)

iii. At the GFR's discretion a flight evaluation will be conducted by an instructor pilot. The GFR will designate whether a government or contractor instructor pilot will conduct the flight.

(d) Operational Hazard Analyses and Hazard Identification: The <_____> Safety Officer will, at the direction of the Director of _____, perform selected Hazard Analyses. The <_____> Safety Officer will provide identification of new/revised hazards to the Director of _____ at the time of identification. Flight Hazards are reported by utilizing the Operational Hazard Report, (Form DA 2696, or equivalent), which is submitted to the Aviation Safety Official or <_____> Safety Officer. Anyone may fill out this form upon witnessing an operational hazard. Upon receipt of an Operational Hazard Report, the Aviation Safety Official or the <_____> Safety Officer will conduct an investigation or take appropriate action to eliminate the hazard.

ADDITIONAL INFORMATION: Also refer to Air Force Instruction 91-404 (Formerly AFR 127-3) *Hazardous Air Traffic Report (HATR) Program*

(6) Monthly aircrew flying safety meetings will be scheduled by the Aviation Safety Official on matters pertaining to the operation and safety of flight operations. A variety of topics will be discussed including: related aircraft mishaps, systems, procedures, regulations, weather and physiology. Attendance is mandatory for all flight personnel. Personnel unable to attend due to scheduling conflicts will read the minutes to the meetings. Meeting minutes can be found in the FCIF, section 1.

(7) Fire protection and prevention program.

(a) Crash Fire Rescue (CFR)(now called Aircraft Rescue and Fire Fighting (ARFF)) personnel training will address the requirements listed in NFPA 1003 chapters 3 through 21 (or host nation equivalent). In addition ARFF personnel will undergo the following recurring training:

i. Annual training on aircraft crew & canopy ejection systems (if applicable) sufficient to avoid inadvertent activation during rescue operations.

ii. Quarterly aircrew extraction exercises.

iii. Monthly aircraft familiarization; including the dangers of initiators, rotary actuators, thrusters, explosive squibs, armament systems, destruct systems; disabling/disconnecting engines, batteries, and oxygen; location of fuel & oxygen tanks; forcible entry points; and installation of landing gear pins.

iv. Quarterly self-contained breathing apparatus (SCBA).

v. Monthly training on the use of specialized tools, e.g. The Jaws of Life.

vi. Quarterly ARFF vehicle familiarization and operation.

vii. Annual live fire training, if allowed by local environmental laws, or GFR approved alternate training addressing methodologies outlined in NFPA 402M (or host nation equivalent).

viii. Quarterly ARFF tactics, strategy and command & control of ARFF.

iv. Quarterly First aid and Triage.

x. Quarterly training in communications techniques and procedures.

xi. Quarterly explosives and munitions hazards during ARFF.

xii. Quarterly pre-mishap planning for on and off site ARFF response.

(b) The ARFF Chief will conduct regular monthly communication checks with the appropriate local agencies (local police, fire department, ambulance authorities, and the State Police) to assure that the emergency communication links are current and in working order.

(c) The ARFF Chief will be the focal point for Fire Protection Prevention and ARFF at the <_____> facility.

(d) The ARFF Chief is responsible for insuring the ARFF vehicles are maintained and checked on a daily basis.

(e) The ARFF Chief will ensure the ARFF vehicle capacity is sufficient to conduct aircrew rescue operations commensurate with the type aircraft at the facility and level of flight and ground operations. In the absence of specific requirements in the contract, Appendix C, Fig. 5, defines the minimum specifications of a ARFF vehicle.

(f) The ARFF Chief will ensure the hangar fire suppression system is inspected and checked at least annually. The check will ensure the sensors are operating correctly.

(g) All fire extinguishers throughout the facility will be inspected monthly.

(h) All personnel will be trained annually on their responsibilities in the event of a fire. Training will include proper use of portable fire extinguishers, location and use of the Pre-Mishap plan, and all methods for sounding fire alarms.

(8) The foreign object damage (FOD) prevention program identifies the responsibilities of all personnel concerning the prevention of FOD to aircraft. The <_____> FOD prevention program can be found in Appendix A (attached).

(9) Tool control requirements. The <_____> tool control procedures can be found in Appendix A (attached). It includes Procedures for tool calibration.

ADDITIONAL INFORMATION: For more information on mishap prevention programs see Air Force Instruction 91-202 (Formerly AFR 127-22) *The US Air Force Mishap Prevention Program*.

b. The Joint <_____>/Government Pre-mishap Plan can be found throughout the facility in RED BINDERS marked "MISHAP RESPONSE PLAN" and in Appendix B (attached).

ADDITIONAL INFORMATION: Pre-mishap plans do not have to be joint, and the contractor is certainly not responsible for ensuring Government personnel develop or follow a Pre-mishap plan. The attached example plan was written as a joint plan to demonstrate the cooperative effort required by contractor and Government personnel to appropriately respond to an aircraft mishap. When Pre-mishap plans are written separately they should be at least compared to one another to ensure a coordinated response. In addition, Pre-mishap plans should be practiced as soon as practical after approval and at least yearly to ensure they actually work. See AFI 32-4001 (formerly AFR 355-1) *Disaster Preparedness Planning and Operations* for additional guidance in developing Pre-mishap plans.

c. Aircraft ground handling, procedures, and practices can be found in Chapter 8 of this manual.

REQUIREMENT/BACKGROUND: This section requires the contractor to develop procedures to ensure only current and qualified personnel are allowed to perform duties as flight crewmembers on Government aircraft. The details of the requirements in this section can be found in later chapters.

3-7 Flight Crewmember Training Requirements

PROCESS OWNER:_____.

a. The Director of _____ is responsible for maintaining all <_____> crewmember qualification and training records. These records will be kept current and accurate at all time. Individual qualifications will be monitored and training scheduled on an as required basis. The crewmember will be notified of the qualification expiration dates and the time/date of the scheduled renewal. Failure to maintain required training within the established time frames will result in suspension of qualification. Additionally all <_____> crewmembers are responsible for ensuring they accomplish training and currency requirements. When a crewmember determines there is the possibility of going non-current and the Director of _____ has not notified him/her already, they will notify the Director of _____ so that actions can be taken to prevent going non-current. In the event a crewmember becomes non-current the Director of _____ will:

(1) Notify the GFR.

(2) Take immediate steps to ensure the non-current crewmember does not fill a primary position on Government aircraft until retraining has been accomplished.

(3) Ensure all flight approval request reflect the non-current crewmember's status.

b. Ground Training Requirements. The Director of _____ will review the expiration dates of ground training requirements for each crewmember and noncrewmember monthly to ensure only those flight personnel who have completed all ground training requirements are scheduled to fly. NOTE: Throughout this guide, where currency periods are expressed in months, the currency expires on the last day of the month in which the requirement is due.

(1) Land Survival Training. (Annual) All Flight crewmembers shall receive survival training in the form of lectures and demonstrations of applicable survival equipment. This training shall include winter/summer/ desert/jungle survival techniques applicable to the terrain and conditions of the flight areas. Live demonstrations and practices will be accomplished when feasible. Documentation of this training shall be maintained in the individuals qualification folder.

(2) Water Survival Training. All new flight crewmembers shall receive initial water survival training. Documentation of this training (prior military training may qualify) is required to fly in government aircraft. All aircrew shall receive annual refresher training provided by contractor life support personnel. Documentation of training shall be maintained in the individuals training folder. One year waivers to this annual refresher training requirement may be coordinated with the GFR for personnel unable to attend any given annual training period. Any aircrew missing this annual training for two consecutive years will require requalification. Water survival training is required when the aircraft will be operated over open water beyond the aircraft's gliding distance to shore. Flight personnel who become noncurrent in water survival must:

(a) Attend a military water survival refresher course for the appropriate aircraft type, or

(b) Receive training that is equivalent to the above from a qualified life support specialist.

(3) Life Support Equipment Training. During the annual survival refresher training lectures, all personal equipment items, such as rafts, life jackets, oxygen masks, smoke masks, parachutes, Combat Edge equipment, anti-G suits (if worn), survival items including signaling devices, and fire extinguishers shall be explained in detail. Emergency procedures, demonstrations and suggestions shall be covered in the lectures.

(4) Egress Training. Egress training is required annually (semi-annually for ejection seat equipped aircraft). Egress training will be tailored to the type aircraft and crew position the individual maintains qualifications in. A written closed book examination with a minimum passing score of 85% corrected to 100% will be administered as a part of this training. The instructional phase will include a review of the applicable items listed below:

- (a) Pre-egress crew coordination methods to include intercom out situations.
- (b) Aircraft egress methods (ground and flight).
- (c) Ejection seat normal and emergency procedures to include automatic modes of operation.
- (d) Survival kit location.
- (e) Seat kit modes of operation and deployment.
- (f) Post egress checklist items.
- (g) Parachute operations to include malfunctions and landing techniques
- (h) Crash landing and ditching procedures.

(5) Physiology Training. Physiology training (exclusive of altitude chamber) for all aircrew shall be accomplished by a qualified physiology training instructor or flight surgeon or at a service operated physiology training unit. Physiological training for pilots and copilots will include vertigon simulator and/or other disorientation training to the maximum extent possible. Aircrew will receive altitude chamber training prior to flight operations above 18,000 ft MSL. Refresher physiology training is required every 4 years for flight crewmembers flying U.S. Navy aircraft and every 3 years for flight personnel flying U.S. Army and USAF aircraft. Crewmembers will carry a current military flight physical or FAA (or host nation equivalent) medical certificate, as appropriate, with them to the altitude chamber prior to receiving training. The expiration date is the last day of the month in which the training is required.

ADDITIONAL INFORMATION: See AFD 11-3 (Formerly AFR 55-27 *Life Support*, AFP 64-5, *Aircrew Survival*, AFP 64-15, *Survival and Emergency Uses of the Parachute*, AFI 21-112, *Aircraft Egress and Escape Systems*, AFI 11-301, *Life Support Program* and AFI 11-403, *Aerospace Physiological Training Program* for assistance in developing training programs for the above subjects.

(6) Ground School Training.

(a) Formal ground school training for initial aircraft/system qualification should be utilized when it is practical. When it is not, training will be conducted in-house, followed by a written closed book examination on individual aircraft prior to qualification.

(b) Continuous flight crewmember orientation involving all in-house aircraft is maintained through flight test reports, flight crew meetings, safety bulletins, and maintenance reports, as well as through personal liaison with cognizant technical departments. All crewmembers are required to annually review these Contractor's Procedures and local base operating procedures. The FCIF will be reviewed semi-annually.

(7) Emergency Procedure Training. Emergency Procedure training is received during the semiannual safety stand-down flight crew meetings in January and July. Testing is part of the annual proficiency flight check and during initial checkout in a new aircraft. The daily flight schedule contains an "Emergency of the Day" which shall be discussed in the pre-mission flight crew brief.

c. Flying Requirements.

(1) Flight Time/Sorties. Minimum semiannual flight requirements for flight crewmembers are listed in Tables 7-1 through 7-4. Instructions for these requirements are found in paragraphs 7-1, 7-2, 7-5, & 7-6.

(2) Annual Proficiency Flight Evaluation. All flight crewmembers shall be evaluated in each aircraft in which they maintain qualification at intervals not to exceed 12 months. The flight evaluation will be administered by a designated evaluator crewmember current in the specific aircraft. Flight evaluations will normally be conducted on regularly scheduled production/development flights. <_____> flight crewmembers are subject to no-notice flight evaluations by Government evaluators. Flight crewmembers must successfully complete a GFR approved open and closed book proficiency exam annually. The GFR or designated representative may randomly administer written examinations to evaluate crewmembers' general knowledge of procedures and aircraft systems. The results of the flight and ground evaluation will be documented on DD Form 1821 (Appendix C, Fig. 4-1). Flight crewmembers will be graded on the following areas as applicable to their crew position:

- (a) Flight planning and briefing.
- (b) Aircraft preflight/flight line operations.
- (c) Taxi and run-up procedures.
- (d) Takeoff and transition to mission/test profile.
 - i. Clearance.
 - ii. Departure.
 - iii. Communications.
- (e) Performance of flight test/production profile.
- (f) Inflight refueling, if applicable.
- (g) Emergency/abnormal/malfunction procedures if occurring.
 - on the flight, otherwise orally on ground.

(h) Instrument Approach and Landings.

(i) Postflight procedures and debriefing.

Also see paragraph 7-3 for additional instructions.

(3) Annual Instrument Flight Evaluation. There is no Government requirement for <_____> pilots and copilots to fulfill the night, instrument, or approach requirements, except in those cases where night or instrument flying by <_____> personnel is required by contract. Pilot/copilots maintaining night proficiency must also maintain instrument proficiency except in aircraft not certified for instrument flight. It is <_____> policy for all pilots who fly Government aircraft to maintain instrument currency to these standards. Flight crewmembers shall complete the instrument exam annually. All <_____> pilots flying under IFR rules must be evaluated in flight. Annual instrument evaluations may be performed separately, or in conjunction with their annual proficiency evaluation (paragraph 3-7.c.2). To be complete, the instrument evaluation must include at least three instrument approaches, including one precision and one non-precision approach.

(4) Army Maintenance Test Pilot (MTP) Requirements. <_____> pilots maintaining MTP qualification to fly as MTPs on Government aircraft on U.S. Army contracts must annually demonstrate academic and flight proficiency in the performance of maintenance test flight procedures. The results of the flight and ground evaluation will be documented on DD Form 1821 (Appendix C, Fig. 4-1).

(5) Flight Evaluators. The Director of _____ will designate one individual in each crew position to be in-flight evaluators. Each evaluator must be a highly qualified and experienced instructor. Evaluator status is annotated on the crewmember's Request for Approval signed by the GFR (Appendix C, Fig 4-3).

(6) Flight Physical.

(a) All flight crewmembers shall receive an annual FAA Class II (or host nation equivalent) (or military) flight physical appropriate for their crew position. This examination will be performed by the _____ (e.g. Contractor Corporate Medical Department). All crewmembers involved in a physiological incident will be examined by a flight surgeon as soon as possible after flight.

(b) Flight personnel will not fly while self-medicating to treat the symptoms of a cold, allergies or flu.

(c) Flight personnel who fail their FAA Class II physical or who, due to a new condition, are unable to maintain minimum medical requirements to fly will be removed from flight status by the Director of _____ until another FAA Class II physical is passed.

(7) Post Mishap Flight Evaluation Crewmembers involved in flight mishaps shall be (at the direction of the Director of _____ or GFR) reevaluated for flight qualifications and submitted for re-approval to the GFR prior regaining flight status approval.

REQUIREMENT/BACKGROUND: This section requires the contractor to develop procedures to ensure only physically qualified and trained personnel are allowed to perform duties as noncrewmembers on Government aircraft. The details of the requirements in this section can be found in later chapters.

3-8 Noncrewmember Requirements. PROCESS OWNER: _____.

a. The Director of _____ will issue a written approval to each <_____> noncrewmember required to fly in Government aircraft, before the individual's first flight, with a copy to the GFR. The Director of _____ makes sure that each person is required and qualified to serve in a specific capacity while aboard military aircraft. The Director of _____ keeps the written approval on file until the individual is no longer authorized to fly. The Director of _____ will monitor noncrewmember qualifications and schedule training on an as required basis. The noncrewmember will be notified of the qualification expiration dates and the time/date of the scheduled renewal. Failure to maintain required training within the established time frames will result in suspension of qualification. Additionally all <_____> noncrewmembers are responsible for ensuring they accomplish training and currency requirements. When a noncrewmember determines there is the possibility of going non-current and the Director of _____ has not notified him/her already, they will notify the Director of _____ so that actions can be taken to prevent going non-current. In the event a noncrewmember becomes non-current the Director of _____ will:

(1) Notify the GFR.

(2) Take immediate steps to ensure the noncrewmember does not fly on Government aircraft until requalification/retraining has been accomplished.

(3) Ensure all flight approval request reflect the noncrewmember's status.

b. Noncrewmember records. The Director of _____ is responsible for maintaining all <_____> noncrewmember qualification and training records for flight operations. These records will be kept current and accurate at all time. Noncrewmember records will be maintained IAW paragraph 4-4.

c. Flying Requirements.

(1) Physiology Training. Physiology training (exclusive of altitude chamber) for all noncrewmembers shall be accomplished by a qualified physiology training instructor or flight surgeon or at a service operated physiology training unit. Noncrewmembers will receive altitude chamber training prior to flight operations above 18,000 ft MSL. Refresher physiology training is required every 4 years for flight crewmembers flying U.S. Navy aircraft and every 3 years for flight personnel flying U.S. Army and USAF aircraft. Crewmembers will carry a current military flight physical or FAA (or host nation equivalent) medical certificate, as appropriate, with them to

the altitude chamber prior to receiving training. The expiration date is the last day of the month in which the training is required. The GFR may waive this requirement for NONCREWMEMBERS ONLY when the individual will be performing duties on a one time only flight. The Director of _____ is responsible for ensuring the following is accomplished:

(2) Qualification Procedures. Each noncrewmember is qualified and required by contract to serve in a specific capacity while aboard military aircraft prior to adding his/her name to the flight authorization request form.

(3) Egress Training. Each noncrewmember receives annual egress training. Training will be tailored to the type(s) of aircraft and position that the individual will be assuming. Training will include a written closed book examination. Emergency training will cover a review of aircraft emergency equipment and procedures (i.e., fire extinguisher training, use of smoke masks, etc.). Egress training will also include standard procedures, crash landings, and ditching procedures.

(4) Flight Physical. Noncrewmembers will receive a flight physical (FAA (or host nation equivalent) or military) prior to altitude chamber rides (required for flight operations above 18,000 ft MSL) and prior to any flight where the cabin altitude exceeds 12,000 ft MSL.

(5) <_____> Physical Requirements. All other noncrewmembers (not requiring a flight physical) will receive a company physical performed by the <_____> Medical Department. All noncrewmembers involved in a physiological incident will be examined by a flight surgeon as soon as possible after flight.

(6) Life Support Equipment Training. During the annual survival refresher training, all personal equipment items, such as rafts, life jackets, oxygen masks, survival items, and signaling devices shall be explained in detail. Emergency procedures, demonstrations and suggestions shall be covered in the lectures.

ADDITIONAL INFORMATION: See AFPD 11-3 (Formerly AFR 55-27) *Life Support, Aircraft Egress and Escape Systems*, AFI 11-301, *Life Support Program* and AFI 11-403, *Aerospace Physiological Training Program* for assistance in developing training programs for the above subjects.

REQUIREMENT/BACKGROUND: This section requires the contractor to develop procedures to ensure passenger flights, on Government aircraft when the Ground and Flight Risk Clause is in effect, are properly approved and conducted in a safe manner. Unless the contract stipulates otherwise, flights for the purpose of transporting routine cargo and personnel are not authorized. In extraordinary circumstances (e.g., to provide critical humanitarian or time sensitive, and mission essential support) the Contract Administration Office (CAO) Commander may approve a special transport flights.

3-9 Passenger Transportation Procedures.

PROCESS OWNER: _____.

Passengers are not allowed on experimental, engineering, developmental, functional, acceptance, production, or maintenance test flights. All passenger transportation procedures shall comply with DoD regulation 4515.13R "Transportation Eligibility." When extraordinary circumstances or contractual requirements dictate passenger transportation, the following procedures will be followed:

- a. The Director of _____ will issue a written request to the GFR.
- b. The GFR will coordinate <_____>'s intentions to the buying activity and the District Chief, Flight Operations. If time does not permit prior coordination, the GFR will notify these offices as soon as practical.
- c. If the flight is approved by the buying activity, the Director of _____ will ensure:
 - (1) All passengers will certify in writing they have received a preflight briefing including emergency egress, ditching, and operation of supplemental oxygen equipment. Certification can be accomplished by passenger signature on a <_____> developed briefing sheet.
 - (2) Passengers are not permitted to smoke onboard Government aircraft at any time.
 - (3) Supplemental oxygen will be available for all passengers for all flights above 18,000 feet MSL.
 - (4) Flight plan and maneuvers will adhere to applicable Aircraft Operating Manual Limitations.

ADDITIONAL INFORMATION: See AFI 24-101 *Passenger Movement* for assistance in developing procedures for the above subject.

REQUIREMENT/BACKGROUND: This section requires the contractor to develop procedures to ensure all flights are properly planned and all facilities necessary for mission planning and filing are available to contractor and Government aircrews. This section must be addressed if the contract aircraft will fly, during or after contract work is completed; even if the contractor does not have flight crews. This section is particularly important to aircrews that arrive to pick up aircraft for the gaining Service organization. Many of these crews will be unfamiliar with contractor operations. Providing these crews with the means to prepare for their mission is an critical requirement of Contractor's Procedures and is essential to reducing the Government's risk.

3-10 Planning and Flight Mission Procedures.

PROCESS OWNER:_____.

a. Mission Profiles. Mission profile diagrams and routes for normal operations are found in Appendix D (example not included in guide at this time). The four most common profiles are functional/acceptance check flights (FCF/ACF), experimental test flights, delivery flights, and leased/bailed aircraft flights.

(1) FCF/ACF. Functional and acceptance check flights are performed to a determined set of specifications. Once the series of specification requirements are determined, the flight test program for each production aircraft is standardized. Pilot techniques and methods are therefore standard within each respective production test program. Follow-up flights or ground functional checks may include any part or all of the general mission profile. Specific procedures for conducting a production test flight will be in accordance with approved engineering flight specifications for production aircraft. Utilization of production aircraft for other than test flight purposes require specific approval of the GFR. A flight clearance (DLA Form 644, Appendix C, Fig. 1.) must be obtained from the GFR prior to flight.

(2) Experimental/Engineering Test Flights. Each experimental/ engineering test flight is performed to a predetermined Test Plan. The Test Plan is reviewed in detail with the flight crew and approved before each test. The Test Plan includes pilot techniques and methods to be conducted during flight. Pilot techniques and methods on experimental flights are basically non-standard. All pilots must be TPS graduates or have an approved waiver from the appropriate military service. All requests for waivers will be forwarded through the GFR. Additional procedures are found in paragraph 3-12.

(3) Delivery flights. These flights are normally planned individually. Delivery flights are usually (but not always) performed by Government crews. It is mainly for these flights that contractors without aircrews must still provide facilities for mission planning and filing.

ADDITIONAL INFORMATION: See AFI 11-207 *Flight Delivery of Aircraft* for assistance in developing procedures for the above subject.

(4) Leased Aircraft Mission Profiles The following procedures apply only for those leased/bailed aircraft where the Government by contract, assumes some or all of the risk of loss, damage, or injury to personnel; for those aircraft where <_____> is assuming the risk, GFR approval or knowledge of the flights is not usually required. However, there may be special requirements in the lease agreement that may require GFR involvement. Flights on leased aircraft will be conducted in accordance with the provisions of the appropriate contractual document which transferred the aircraft to the contractor. A mission profile will be developed for each flight, dependent on the specific program being conducted. Flights are usually conducted within the confines of the designated flight test areas. If the aircraft is to be flown for other reasons (e.g., pilot training, transportation, demonstration), a written request will be submitted to the GFR stating the exact purpose and duration of the flight. A flight clearance (DLA Form 644, Appendix C, Fig. 1.) for each leased aircraft mission will be obtained prior to flight. (Note: As mentioned in the Foreword, a good description of bailed/leased aircraft can be found in NAVAIRINST 13101.1, *Policy & Procedures for NAVAIR Controlled Aircraft Provided by the Government to Non-military Organizations*)

b. Commensurate with the mission profile all <_____> flights will be conducted to make maximum use of ground radar, constant radio contact, or chase/pace aircraft to monitor position and status of the mission aircraft.

c. Crew Briefings. Prior to every flight, crew briefings will be held to discuss all items on the Prepermission Briefing Guide (Appendix D, Fig. 6). Special consideration will be given to procedures for performing mission requirements including recording mission data while maintaining outside vigilance for other traffic. A thorough post flight debriefing will be held at the completion of each flight. The extent and depth of the briefings will depend on the type of flight, complexity of the tests and equipment, and previous experience. The Director of _____ is responsible for ensuring each mission includes thorough preflight and post-flight briefings. The crew will be briefed on all matters and conditions relating to the specific tests and equipment, and data requirements. During crew briefing, particular emphasis is placed on any deviations from standard operating procedures. All mission briefs will include:

(1) Station and Takeoff Times.

(2) Primary Mission- to include mission support aircraft, weather, crewmember duties, routes and ranges, communications, specific mission Procedures, all planned flight events, recovery, and landing. All deviations from standard mission profiles will be thoroughly briefed.

(3) Alternate Mission- Any alternate mission(s) will be thoroughly briefed.

(4) Equipment.

(a) Each flight will include a briefing on personnel support equipment carried onboard the aircraft by flight crew and the location of emergency equipment onboard the aircraft.

(b) Briefings on special test equipment will be conducted, including new, special or modified aircraft systems or components.

(c) All flight crew members, personnel and passengers must be seated with seat belts or gunners' belts fastened during takeoff and landing.

(5) Emergencies-

(a) Flight personnel and passenger briefings will include emergency procedures. Procedures followed during emergency situations, to include crew responsibilities, will be briefed.

(b) Simulated emergency procedures. During the crew briefing, and in-flight prior to simulating any emergency, the aircraft commander will ensure the crew is briefed on the condition to be simulated. During the flight the term "simulated" will be stated over the interplane communication system prior to accomplishing the condition. Simulated emergency procedures will be conducted according to the aircraft flight manual and directives of the Service. Simulated

emergencies will not be performed during night, instrument meteorological conditions, with passengers aboard, or when safety would be jeopardized.

(6) Security- In the event that a flight involves classified material equipment, all personnel are briefed as to their security responsibilities. The pilot is responsible for security of the aircraft when away from the <_____> facility.

(7) Ground Coordination- The pilot in command will brief the ground crew on preflight, engine start, emergency, and taxi procedures to include hand signals to be used in the event of communications failure. If a particular flight or series of flights require new or modified ground coordination instructions or procedures, these are included in the preflight briefings.

(8) Passenger Briefing- In addition to the regular crew briefings, when the flight includes passengers, they will be briefed prior to takeoff on:

- (a) Mission profile.
- (b) The role they will take in the flight.
- (c) Their stations.
- (d) Location and use of equipment including supplemental oxygen equipment.
- (e) Conduct during emergency situations.
- (f) Prohibited activities (smoking, use of aircraft radios, occupying a pilot's seat etc.).
- (g) Emergency egress & ditching.

(9) Mission Debriefing. All flights will be thoroughly debriefed. For all ACF/FCF and Test missions the PIC will conduct a postflight maintenance debriefing with <_____> and DLA quality assurance representatives. The PIC will review each discrepancy and ensure that it is recorded in the appropriate Service or approved <_____> data document. See Appendix C, Fig. 7., for the Debriefing sheet.

(10) Formation/Chase Procedures. All mission briefings for flights involving formation/chase aircraft will include the normal briefing items (Appendix C, Fig. 6.) modified for formation aircraft, and formation unique procedures including:

- (a) Formation commander.
- (b) Communications.
- (c) Formation join-up/break-up.

(11) Lost Communications Procedures.

(12) The following personnel or their designee will attend each preflight and postflight briefing:

- (a) Flight crew(s).
- (b) Quality Assurance Supervisor.
- (c) Aircraft Ground Crew Representative(s).

- (d) Government Quality Assurance Representative.
- (e) Others as required.

(13) Experimental test flight briefings will include, as needed, in addition to personnel mentioned above:

- (a) Test Director.
- (b) Flight Test Engineer(s).
- (c) Lead Instrumentation Engineer.
- (d) Data Analyst (TM Room Coordinator).
- (e) Technology Representatives (TM Crew).
- (f) Design Support Engineers.
- (g) FCS, Avionics.
- (h) Aircraft Manufacturing Supervision.
- (i) Engine Service Representative.
- (j) Flight Test Safety and/or System Safety Engineer.

d. Miscellaneous flight related procedures.

(1) Weather Minimums. FCF/ACF and Experimental test flights will only be accomplished during day visual meteorological conditions unless testing procedures dictate otherwise (e.g. NVG testing). The takeoff/landing minimums will be consistent with the aircraft instrumentation, operating navigation aids and the aircraft operating manual.

(a) In addition, initial FCF/ACF and all Experimental Test flights:

- i. Bomber, cargo, tanker, patrol, and trainer aircraft: 1,500 feet and 3 miles.
- ii. Fighter, attack, and reconnaissance aircraft: 3,000 feet and 3 miles.
- iii. Helicopters: 700 feet and 1 mile.

(b) Subsequent FCF/ACF and engineering test flights (i.e. flights of aircraft whose airworthiness had been demonstrated on previous sortie(s) and where flight instruments have already be checked in-flight):

- i. Bomber, cargo, tanker, patrol, and trainer aircraft: 1,000 feet and 3 miles.
- ii. Fighter, attack, and reconnaissance aircraft: 1,000 feet and 3 miles.
- iii. Helicopters: 500 feet and 1 mile.

(c) Training flights (including touch-and-go landings): 300 feet and 1 mile. Flights within the confines of the <_____> airfield require approval of the Director of _____ and GFR when ceiling and visibility are less than 700 feet and 1 mile.

(d) Pickup and delivery flights: 200 feet and 1 mile.

(e) Helicopter hover checks may be performed when visual reference to the ground and obstruction clearance can be maintained.

(f) The following sources will be utilized in determining weather conditions:

- i. Airport control tower.
- ii. Regular and special weather reports received through control DUATs from the U.S. Weather Service.
- iii. Commercial and <_____> pilot reports.

(g) Under no circumstances will VFR flights be conducted with less than the following weather minimums:

FLIGHT ALTITUDE	VISIBILITY	DISTANCE FROM CLOUDS
To 1200' AGL within controlled airspace*	3 Statute Mi**	500' below*** 1000' above*** 2000' horizontal***
Outside controlled airspace	1 Statute Mi****	Clear of clouds
Above 1200' AGL but less than 10000' MSL within controlled airspace	3 Statute Mi**	500' below*** 1000' above*** 2000' horizontal (3)
Outside controlled airspace	1 Statute Mi	500' below*** 1000' above*** 2000' horizontal (3)
Above 1200' AGL and at or above 10000' MSL	5 Statute Mi	1000' below 1000' above 1 Mi horizontal

* 1000' minimum ceiling unless cleared by ATC.

** May be less for helicopter if cleared by ATC.

*** May be "clear of clouds" if cleared by ATC.

**** When visibility is less than one mile, helicopters may be operated at a speed that allows the pilot adequate opportunity to see any air traffic or other obstructions in time to avoid a collision.

(2) Requirements for air traffic control.

(a) Transponders shall operate on the appropriate modes and codes to facilitate radar observation. On test flights radar monitoring by Approach Control and Center shall be maintained. The Director of _____ and GFR shall be consulted when flight operations will be conducted with varying weather conditions that are near the established minimums.

(b) <_____> Radio.

i. <_____> operates a radio ground station for the purpose of monitoring and assisting movements within the <_____> test flight area and ramp. A radio operator shall be on duty any time flights are conducted which do not use ATC or other flight following.

ii. Frequencies- Pilots will contact <_____> Radio for assignment of VHF/UHF radio frequencies. Production flight following normally will be assigned to VHF/UHF _____.

iii. Communications- Aircraft will maintain communications as described below on appropriate frequencies.

-Departures - (Fill in.)

-Arrivals- (Fill in.)

iv. Position Reporting- Position reports are made to the <_____> Radio at each 15 minute interval of flight while operating in the test area and prior to leaving the area to return to the <_____> ramp. The position report will include the aircraft call sign, position, heading, altitude, and current status. FAA (or host nation equivalent) position reporting procedures will be utilized when operating away from the <_____> facility.

(3) Filing Flight Plans. Prior to each flight, the pilot will contact _____ or the Flight Service Station at _____ to file a flight plan. Upon return to the <_____> ramp, the pilot will contact Flight Service Station and close the flight plan. The Director of _____ will maintain a copy of the flight plan for 90 days after day of flight.

(4) Standard Operating Procedures. <_____> flight operations are conducted to the greatest extent possible under Standard Operating Procedures. These procedures are documented in this manual and the other material referenced herein. When a need for new procedures is identified or when existing procedures become obsolete or require revising, The Director of _____ directs and coordinates the preparation and approval.

(a) Radio Failure- <_____> aircraft experiencing radio failure while operating under IFR will comply with FAR 91.185 (general procedures for aircraft experiencing radio failure while operating under VFR are contained in paragraph 470 and 205 of ~~the~~ *man's Information Manual*). Specific procedures for <_____> follow: (Fill in)

(b) Gear Malfunction- Retractable gear aircraft experiencing landing gear malfunctions shall notify ATC and <_____> radio (if possible) of the situation. Maintenance and crash-rescue facilities will be alerted as to the nature of the difficulty and the pilots intended course of action. The decision to land with partial or no gear extended should be based on the aircraft operating manual and is the pilot's option. If the aircraft is to be abandoned under controlled circumstances see paragraph "f" below. Normally, emergency landings will be accomplished at _____ Airport if gear cannot be extended.

(c) Cross Wind Landing- Pilots will observe wind envelope limitations specified in the operators manual for particular aircraft types. For experimental aircraft or envelope expansion flights, the limitations of the particular test plan will be observed.

(d) Traffic Procedures - The traffic procedures used to regulate VFR <_____> flight operations at <_____>'s airfield are diagrammed in Appendix D, Fig. 1.

(e) Emergency Procedures In the event of any aircraft emergency (~~flight~~, ground) reported to or observed by <_____> Radio, the Radio Ground Station Operator will (as required):

- i. Notify ARFF teams.
- ii. Notify the Director of _____.
- iii. Implement the Pre-Mishap Plan (Appendix B).
- iv. Check the suitability of emergency airfields. Appendix D, Fig. 2, contains the locations and descriptions of airfields that can be used for unscheduled landings.

v. Ensure the barrier is raised (if required).

(f) The Controlled Bailout/Ejection and Jettisoning Area is found in Appendix D, Fig. 3. The pilot will ensure all aircraft manual jettisoning procedures are followed and the drop area is clear prior to jettisoning.

(g) The Arming and Darming areas are annotated on the airfield diagram in Appendix D, Fig 4.

(h) Minimum Fuel Requirements All <_____> pilots will plan all flights so that there is a minimum of 30 minutes fuel remaining upon termination of forward flight. All flights will be concluded with a minimum of 30 minutes fuel remaining onboard.

(i) Life Support Equipment.

i. Parachutes- Parachutes are required in ejection seat aircraft unless the parachutes are integral to the seat. In non ejection seat aircraft (excluding helicopters), aircrew personnel will wear parachutes or harnesses with a parachute readily available during initial FCF/ACF missions if the aircraft has a prescribed ejection or bailout procedure. At the discretion of the pilot in command, parachutes may be removed for movement within the aircraft when necessary to perform duties. Parachutes are not required on subsequent FCF/ACF missions or other flights provided their use is not otherwise required by the flight manual. Parachutes must be inspected by a qualified life support technician and repacked within the preceding 120 days prior to flight.

ii. Protective Flight Equipment.

1. All flight crewmembers will wear approved leather boots, fire protective suits and gloves.

2. Protective helmets with communications capability will be worn by each crewmember in helicopters and ejection seat aircraft, and anyone flying in a position requiring a parachute.

3. At least one smoke mask will be accessible to each crewmember on cargo type airplanes.

4. Laser safety eye protection will be worn by all personnel involved in laser operations.

iii. Emergency Locator Transmitter (ELT)/Hand Held Radios. An ELT or Hand Held Radio will be carried on all flights.

iv. Signaling Device Each crewmember will carry, or have access to, a signal mirror or other signaling device on all flights.

v. Life Preservers. When an aircraft will be flown over water where an emergency landing on land is not possible, Life rafts will be carried and all personnel will wear a life preserver that has been inspected within the time limit called out by the manufacturer. Anti-exposure suits will be worn as required by appropriate Service directives.

(j) Severe Weather. The <_____> Radio Operator will monitor the hourly weather reports issued by the U.S. Weather Bureau. He will also monitor the wind direction, velocity, and gusts at the <_____> ramp. Upon receipt of a severe weather warning, he will immediately advise:

- i. All airborne aircraft.
- ii. The Director of _____.
- iii. Aviation Safety Official.
- iv. Government Flight Representative.

If aircraft are airborne and the weather does not permit recovery the <_____> Radio Operator will check the suitability (weather, NOTAMS) of alternate recovery locations. Flight operations will not be conducted in wind conditions outside the aircraft's envelope. A decision to evacuate aircraft due to approaching severe weather will be made by the Director of _____ in coordination with the GFR. The Director of _____ will not delay evacuation if the GFR is unavailable. Also see Appendix Q for Severe Weather Procedures.

(k) Weight and Balance A standard weight and balance chart will be completed prior to each FCF/ACF flight. The aircraft operators manual will be utilized to complete the form. Weight and Balance for experimental/ engineering flights will be computed for each flight per the approved Test Plan. The aircraft's weight and balance will be briefed at each preflight briefing.

ADDITIONAL INFORMATION: See T.O.-1-1B40 *Weight and Balance Data* and T.O.-1-1B-50, *Basic T.O. for USAF Aircraft Weight and Balance* for more information on the above subject.

(l) Procedures for laser operations are found in Appendix E.

(m) Live Fire and Gunnery.

i. All firing tests will be conducted at the _____ test range.

ii. Weapon firing test will comply with the local procedures and rules of the _____ test range.

iii. The PIC will adhere to all available course rules and will ensure that all loading and unloading of any armament is done in a safe and effective manner and that once loaded, all armament delivery will be within the guidelines of the particular manufacturer's instruction.

iv. If during the firing test, there develops any lack of adherence to acceptable standard or course rule, the PIC will terminate any further testing until all discrepancies are corrected.

v. The following procedures will be followed in the event of hung ordinance:

(n) Bird Strikes. Bird strikes that appear to cause minor damage can, in fact, be much more serious. There may be dangerous internal damage to fuel and hydraulic lines even when only minor damage to the surface of the aircraft is observed. If a bird strike occurs the following procedures will be followed:

i. Takeoffs or planned touch-and-goes will be aborted if enough runway remains to stop.

ii. During flight abort the mission if possible using appropriate aircraft operating procedures.

iii. Bird strike damage cannot be accurately assessed in flight and may result in a complex airborne emergency. Only maintenance personnel on the ground will make damage assessments.

ADDITIONAL INFORMATION: See AFR 127-15, *The Bird Strike Hazard Reduction Program*, for more information on the above subject.

(o) Required Daylight Operations.

i. All initial FCF/ACFs and subsequent FCF/ACFs involving discrepancies for engine, flight control (including trim tabs, flaps, slabs, slots, slats), landing gear, or instruments affecting IFR capability will commence no earlier than official sunrise and terminate no later than 30 minutes prior to official sunset. All other FCF/ACFs will commence no earlier than official sunrise and terminate prior to official sunset, unless required by check profile or contract.

ii. Test and evaluation flights will be conducted between official sunrise and sunset unless night operations are specifically required by the test plan.

(p) Aircraft Stalls, Aerobatics, and Slow Flight. Maneuvers will be accomplished in VFR conditions only and in an appropriately designated area. Aerobatic maneuvers will be

completed above 5,000 feet AGL. Stalls and slow flight will be completed above 10,000 feet AGL for turbojet powered aircraft and 5,000 feet AGL for propeller driven aircraft.

(q) Touch-and-Go Landings.

i. Practice touch-and-go landings will be performed in accordance with current Service and aircraft flight handbook and training guidelines.

ii. Touch-and-go landings may be performed from simulated engine-out approaches when not prohibited by the aircraft flight handbook. All engines will be used for the takeoff.

(r) Supersonic Flight. The Director of _____ will coordinate supersonic flight procedures through the local FAA Air Route Traffic Control Center (ARTTC) (or host nation equivalent).

i. Supersonic flights will be performed only when required by the mission. Supersonic flights will be planned at altitudes and along routes which will cause the least public disturbance.

ii. A sonic boom log will be maintained by the Director of _____ for at least 1 year. The log will include:

1. Aircraft type, date, pilot in command name.
2. Time(s) of occurrence.
3. Start/finish points (or) start point, direction, and duration of supersonic flight.
4. Altitude(s).
5. Maximum mach.

ADDITIONAL INFORMATION: See AFI 11-206 (Formerly AFR 60-16) *General Flight Rules*, AFI 13-201 (Formerly AFR 55-2) *USAF Airspace Management* and AFI 13-203 (Formerly AFR 60-5) *Air Traffic Control*, for assistance in developing procedures for the above subjects.

REQUIREMENT/BACKGROUND: The purpose of this requirement is to ensure that government aircraft are properly protected from unlawful seizures. It should detail specific procedures used at the facility to control ground and air movement of aircraft for unauthorized use.

3-11 Unlawful Seizure Procedures. PROCESS OWNER: _____.

The primary method for controlling unauthorized use of government aircraft is through ~~those~~ movement control through the control tower. Ground and flight activities will coordinate through the control tower for all operations. The control tower operators will provide movement clearance for only scheduled and approved activities. Any suspicious activities or movement of aircraft without tower approval requires immediate initiation of anti-hijacking procedures IAW _____. Additionally, all supervisors, and flight and ground personnel will be briefed on

their responsibility to monitor operations and report any suspicious activity to the control tower immediately.

RELATED INFORMATION: The GFR may require the anti-hijacking procedures to be detailed or make reference to other accepted practices such as those in the Airman's Information Manual (para. 6-24), appropriate service regulations, and other local/Host Nation procedures.

ADDITIONAL INFORMATION: See AFI 13-207 *Preventing and Resisting Aircraft Piracy (Hijacking)* (FOUO), (Formerly AFR 60-14), for more information on the above subject.

REQUIREMENT/BACKGROUND: Experimental test flights require greater scrutiny than normal flights. When a new test flight profile is proposed the test plan must be reviewed by the GFR. If possible, the GFR should be notified not later than six months prior to the expected first flight. This should allow adequate time to determine the need for any contractor pilot qualification or training requirements. The initial DLA Form 644 should be forwarded to the GFR 15 days prior to the initial flight. These time restrictions are necessary to prevent any delays in the program without sacrificing safety.

3-12 Experimental/Engineering Test Flight **PROCESS OWNER:**_____.

Detailed Test Plans are developed from contractual specifications and submitted to the cognizant government agency for approval, with copies to the GFR and Engineering for information and comment. These test plans will define test objectives, test conditions, techniques and procedures, flight limitations, instrumentation data, chase required and safety provisions. Following government approval, the individual flight profiles will vary based on the type of testing and will, in most cases, require multiple testing (or secondary objectives) on a single flight to maximize productivity and safety. Flight Clearances must be submitted for GFR approval as noted below:

a. The flight clearance (DLA Form 644 Appendix C, Fig. 1.) will, for the start of each new program, be submitted to the GFR not later than 15 days prior to the clearance period.

b. The GFR will check that all required information (test plan, point of contact with responsibility for the flight test and airworthiness release) is available and will check that the clearance is in accordance with these documents prior to approval.

c. The clearance will identify:

- (1) Testing or the modifications accomplished.
- (2) Test Plan conditions to be conducted (referred to Test Plan Section/Conditions) and estimated number of flights.
- (3) Flight crews and special conditions (NOE, NVG, etc.).

d. The Director of _____ will ensure the GFR and Quality Assurance Representative (QAR) are notified when Safety of Flight Reviews are held prior to the start of the

program. Government quality or technical inspectors will inspect the aircraft and attend Safety of Flight Reviews as required by the Defense Logistics Agency or cognizant government agency.

e. Changes in the planned testing not included in the flight clearance will require revision to the clearance and GFR approval. An updated flight clearance will be submitted.

f. Paragraph 5-2. describes qualification requirements for crewmembers conducting experimental test flights.

REQUIREMENT/BACKGROUND: This requirement exists to ensure that those individuals who perform aircraft operations are not impaired by the use of illicit drugs or alcohol. These procedures should include procedures to periodically test individuals involved with aircraft operations.

3-13 Drug Free Workforce Program. PROCESS OWNER:_____.

Personnel involved with flight or ground operations will comply with <____>'s Drug Education and Testing Program (Appendix ____).

RELATED INFORMATION: This program is also required by FAR 52.223-6, found in most basic contracts.

ADDITIONAL INFORMATION: See AFI 44-120 (Formerly AFR 160-230) *Drug Abuse Testing Program*, for more information on the above subject.

REQUIREMENT/BACKGROUND: This requirement states that ~~the~~ Contractor's Procedures must be forwarded to the GFR for approval. It also requires that sufficient copies be made available to those personnel who are required to implement ~~the~~ Contractor's Procedures

SECTION C - APPROVAL

3-14 Approval of Contractor's Procedures

PROCESS OWNER:_____.

The Director of _____ forwards the complete Contractor's Procedures to the GFR for approval. The Contractor's Procedures for each operating location must be approved by the GFR assigned. Current copies of the Contractor's Procedures shall be maintained by the contractor at each facility. Furnish a list of the approved flight crewmembers to all remote or geographically separated operating locations. <____> can not begin flight or ground operations until the Contractor's Procedures have been approved in writing by the GFR. The Director of _____ will review the Contractor's Procedures semiannually for currency. The GFR will review all changes and will approve/disapprove them within 30 days. The GFR will also review and re-approve the Contractor's Procedures at least annually.

REQUIREMENT/BACKGROUND: The purpose of this requirement is to define the responsibility of the GFR to notify the contractor when problems exist with the Contractor's Procedures. It also identifies that if the contractor does not correct the deficiency within the specified time, the GFR may withdraw approval and operations conducted after this time are deemed without approvals required by contract.

SECTION D - DEFICIENCIES

3-15 Procedure Deficiencies. PROCESS OWNER:_____.

<_____> will be notified by the GFR if the Contractor's Procedures are deficient, inadequate, or outdated. <_____> understands that failure to correct the Contractor's Procedures within a specified time is grounds for withdrawal of the GFR's approval of the flight crewmembers and/or Contractor's Procedures. Flight operations conducted after such withdrawal are deemed operations without the approvals required by applicable clauses of the contract.

REQUIREMENT/BACKGROUND: This paragraph details the requirement for the GFR to notify the contractor and the ACO in writing if Contractor's Procedures are not being complied with. This paragraph should be included as written in order to clarify to those reading the Contractor's Procedures the GFR's responsibility and authority to protect aircraft under circumstances where the required Contractor's Procedures are not being complied with.

SECTION E - NONCOMPLIANCE

3-16 Noncompliance With Approved Contractor's Procedures.

PROCESS OWNER:_____.

<_____> and the ACO will be notified by the GFR if the approved Contractor's Procedures are not being complied with or dangerous practices develop. Oral notification by the GFR will be followed by a formal written statement fully outlining the deficiencies, as a matter of contract record. Failure to comply with approved Contractor's Procedures or development of a dangerous practice is unacceptable and therefore an unreasonable condition within the meaning of the clauses of the contract. This is grounds for termination of the Government's assumption of risk for loss or damage to Government aircraft. The Government reserves the right to take such other action as may be necessary for preserving the aircraft.

REQUIREMENT/BACKGROUND: The purpose of this requirement is for the contractor to develop a system which ensures that the Contractor's Procedures are revised when needed. This is an area which is often neglected by some contractors. After an aircraft mishap is not the time to discover that the pre-mishap plan refers to a person that died two years ago.

SECTION F - REVISION

3-17 Review System. PROCESS OWNER:_____.

<_____> shall conduct a review of this manual semiannually to ensure currency and compliance. The Director of _____ will ensure that all telephone numbers and references are correct during his/her review. This review will allow <_____> the opportunity for to submit changes. Draft changes will be provided to the GFR for review prior to their inclusion in the Contractor's Procedures manual. The GFR will review all changes and will approve/disapprove them within 30 days.

CHAPTER 4

FORMS AND RECORDS

REQUIREMENT/BACKGROUND: This section requires all contractors to maintain standardized forms and records for crewmembers & noncrewmembers. The requirements for ground personnel records are outlined in chapter 8. Each individual has a training folder and qualification folder. These folders are usually maintained by the contractor's Flight Safety Office for flight crewmembers and noncrewmembers, and by the Personnel Office for ground personnel. Wherever they are located they must be kept up to date at all times and readily available to the GFR for review.

ADDITIONAL INFORMATION: See AFI 11-41 (Formerly AFR 60-1) *Flight Management*, for more information on the above subject.

4-1 Forms

a. DD 1821. Contractor-Crewmember Record, (Appendix C, Figs. 8a, b, & c.), OMB Approval No. 0704-0188, shall be used to record individual flight crewmember records and approval to operate Government aircraft.

b. Request for Approval for Qualification Training, (Appendix C, Fig. 9.), shall be used to initiate individual flight crewmember training. Two (2) completed copies shall be submitted to the GFR with an attached DD Form 1821 (see above) for approval. Also include a resume of the crewmember's education background (high school, name and location; college or university name, location and degree obtained; flight school and date completed; test pilot school and date completed; and special professional schools). Include details of crewmember's experience in the flight test field, and both engineering and aircrew experience by project, type of aircraft, and hours flown. No in-flight training may occur prior to the GFR approval for qualification training.

c. Request for Approval of Contractor Flight Crewmember, (Appendix C, Fig. 10.), is submitted to the GFR upon completion of qualification training. The crewmember may continue to fly under instructor crewmember supervision until approved by the GFR.

d. Approval of Flight Noncrewmembers (Appendix C, Fig. 11.), is kept in the noncrewmembers' record and is used by <_____> to approve qualifications for noncrewmembers. Noncrewmembers are approved by <_____>'s Director of Flight Safety and the Chief Pilot.

e. Flight Safety Qualifications Card, (Appendix C, Figs. 12a & b.), is carried by <_____> noncrewmembers to demonstrate their qualifications to at in a specified capacity while in flight. Each accomplishment block on the card will be initialed by <_____>'s Director of Flight Safety, the Chief Pilot, or the person conducting the training/examination.

REQUIREMENT/BACKGROUND: The contractor must maintain a training folder on each flight crewmember/noncrewmember while in training status. This folder serves as a management tool to record training progress and assist in the orderly progression of training. Contractors may (with GFR concurrence) use the forms and format appropriate to the parent service of the contract aircraft. As a minimum, the folder must contain the items listed in DLAM 8210.1, Vol. 1, 4-2 a-e.

4-2 Training Folder PROCESS OWNER:_____.

A training folder on each flight crewmember/ noncrewmember will be initiated whenever a "Request for Approval of Qualification Training" (see 4-1 b. above) is submitted to the GFR for approval. This folder will contain:

- a. A record of all applicable qualification training and program completions (e.g., initial qualification, FCF qualification, instructor qualification, multiple aircraft qualifications).
- b. A record of the grade and date of the current aircraft and aircrew examinations.
- c. Hours, types, and dates of ground schools completed.
- d. A record of each training and checkout flight, numbered with a record of the areas covered, including how the trainee performed during that training period and appropriate recommendations.
- e. Record of training requirements' prerequisites.
- f. A copy of the flight crewmember/noncrewmember's Request for Approval for Qualification Training.
- g. Copies of waivers pertaining to the above topics and any medical waivers.

REQUIREMENT/BACKGROUND: The contractor must maintain current records on each flight crewmember. This folder serves as the GFR's primary source in determining whether a crewmember is qualified to fly. Contractors may (with GFR concurrence) use the forms and format appropriate to the parent service of the contract aircraft. As a minimum, the folder must contain the items listed in DLAM 8210.1, Vol. 1, 4-3 a-h.

4-3 Flight Crewmember Records. PROCESS OWNER:_____.

A record folder for each <_____> flight crewmember shall be maintained after completion of training and qualification. This folder shall contain:

- a. A completed training folder as required in paragraph 4-2 above for at least one year.

b. GFR signed copies of the flight crewmember's "Request for Approval of Contractor Flight Crewmember", (see 4-1 c. above). Include documented records of any completed special training which is needed to perform all maneuvers required to conduct the test, functional/acceptance check flights, and mission profile; for example: formation, refueling, instrument, night, low level, etc.

c. Certification of current military flight physical or FAA (or host nation equivalent) medical certificate.

d. Completed copies of the most recently completed proficiency examinations for each aircraft qualified.

e. Certification of physiological training and altitude chamber, when required.

f. Certification of applicable life support, egress and survival training as required by the Chapter 3 of these Contractor's Procedures

g. A copy of all applicable FAA certificates and records of other qualifications.

h. A copy of all flight evaluations for a minimum of two years.

REQUIREMENT/BACKGROUND: The contractor must maintain current records on each flight noncrewmember. This folder serves as the GFR's primary source in determining whether a noncrewmember is qualified to perform specified duties while in flight. Contractors may (with GFR concurrence) use the forms and format appropriate to the parent service of the contract aircraft. As a minimum, the folder must contain the items listed in DLAM 8210.1, Vol. 1, 4-3 a-h.

4-4 Flight Noncrewmember Records PROCESS OWNER:_____.

A record folder for each approved noncrewmember will be established and will contain:

a. A completed copy of the noncrewmember's "Approval of Flight Noncrewmember" (see 4-1 d. above).

b. Medical certification by _____ (Corporate Medical Department Flight Surgeon).

c. Certification of training and qualifications as required by the Contractor's Procedures (see chapter 3).

d. Certification of physiological training and altitude chamber, when required.

e. Certification of applicable life-support, egress and survival training required by these Contractor's Procedures

|4-5 Flight Time Records PROCESS OWNER:_____.

Aircrew flight time records, by mission, type, design and series aircraft, shall be maintained by <_____> Flight Operations in computer format. This computer printout shall be used by Flight Operations to monitor semiannual flight time, aircraft currency and proficiency requirements and for scheduling purposes. A copy of the monthly summary will be forwarded to the GFR to expedite flight approvals. Individual computer printouts are available upon request. The maintenance of individual flight logbooks is optional, and is the responsibility of the individual concerned.

4-6 Access to Records All records discussed in this chapter will be made available to the GFR or other authorized government personnel at the request of the GFR.

4-7 Ground Personnel Records Certification records shall be maintained for all ground personnel involved in flight operations. <_____>' Personnel Office will ensure all records are current at all times and will make these records available to the GFR. Paragraph 8-5 of these Contractor's Procedures describe ground personnel records.

CHAPTER 5

QUALIFICATION REQUIREMENTS

REQUIREMENT/BACKGROUND: This chapter addresses the minimum qualification requirements aircrewmembers must meet prior to beginning flight operations. It has been reproduced *almost* verbatim from DLAM 8210.1 Vol. 1. Contractors may make their Contractor's Procedures more restrictive.

5-1 General Qualifications Minimum qualifications for approval of <_____> flight crewmembers, for test, and other flight categories, are listed below. However, they are only minimums and such factors as total experience, currency of experience, experience in similar aircraft, type of flying experience, and other related factors will be evaluated by the GFR before approving a contractor flight crewmember. All pilots will have an FAA Commercial Pilot or Airline Transport Pilot rating and the appropriate category endorsements. Flight engineers will have an FAA Flight Engineer Certificate and appropriate category endorsement.

NOTE: For operations located in foreign countries, the appropriate civil aviation authority or foreign military department ratings may be substituted for FAA ratings when authorized by the approving authority.

5-2 Experimental Test Flights and Associated Experimental Ground Operations

a. Pilot. Not less than 1,500 hours first-pilot time, to include 100 hours as first-pilot during engineering and/or acceptance flights listed under the functional flight category. Graduation from a military test pilot school (TPS) is required (see below).

b. TPS Waiver. When the <_____> pilot is not a graduate of a military TPS, the education and experience requirements listed below must be met as a basis of consideration for TPS waiver. Requests for waivers will be submitted to the GFR who forwards the request with recommendations, through channels as appropriate, to: Headquarters, U.S. Army Materiel Command; Headquarters, Air Force Materiel Command; or Headquarters, Naval Air Systems Command (AIR42C).

(1) Pilots must have at least 2,000 hours first-pilot time in comparable aircraft (e.g., helicopter, fighter/attack, cargo, or other). Additionally, 200 hours of first-pilot time during engineering flight test and 10 hours during experimental flight test are required.

(2) Education and experience requirements are as follows:

(a) An undergraduate or higher degree in an aerospace related engineering or aerospace related scientific discipline plus 1 year of applicable engineering test experience.

(b) An undergraduate or higher degree in any other engineering or scientific discipline plus 2 years of applicable engineering test experience.

(c) Any non-engineering undergraduate or higher degree plus 3 years of applicable engineering test experience.

(d) No degree, 4 years of applicable engineering test experience.

c. Flight Engineer. Not less than 1,000 hours of flight engineer time to include 500 hours of engineering or experimental flight test in comparable aircraft (e.g., helicopter, fighter/attack, cargo or other).

5-3 Other Flights (Engineering Test, Check Flights, and Support Flights)

a. Pilot. The pilot must be qualified in mission, type, design, and if appropriate, series of aircraft. He/she must have not less than 1,000 hours first-pilot time. In addition:

(1) For fighter, attack, and trainer aircraft, the first pilot time must include 100 hours in the same aircraft type.

(2) The first-pilot time for other aircraft must include 300 hours in the same aircraft category (see table 51).

b. Copilot. The copilot must have not less than 500 hours first-pilot time and be qualified in mission, type, design, and if appropriate, series aircraft.

c. Maintenance Test Pilot (MTP) (Army).

(1) Army Standard Aircraft. Maintenance test flights will be conducted by a graduate of the Army Aircraft Maintenance Officers Course (AMOC) Phase II or complete an equivalency evaluation performed by the United States Army Aviation Logistics School (USAALS). <_____> will submit requests for equivalency evaluation to the GFR who forwards the request through the procuring command MACOM Aviation Office to the Commandant, USAALS, Fort Eustis, VA 236045431.

(2) Nonstandard Army Aircraft. For nonstandard Army aircraft and <_____> furnished aircraft, maintenance test flights will be accomplished by pilots designated in writing by the GFR, upon request from the contractor.

d. Flight Engineer. The flight engineer must have 1000 hours flight engineer time of which 300 hours must be in the same aircraft category and he/she must be qualified in the mission, type, design, series of aircraft.

1. Reciprocating airplanes with maximum gross weight less than 12,000 pounds.
2. Reciprocating airplanes with maximum gross weight more than 12,000 pounds.
3. Turbo prop airplanes with maximum gross weight less than 100,000 pounds.
4. Turbo prop airplanes with maximum gross weight more than 100,000 pounds.
5. Jet airplanes with maximum gross weight less than 75,000 pounds.
6. Jet airplanes with maximum gross weight from 75,000 to 500,000 pounds.
7. Jet airplanes with maximum gross weight more than 500,000 pounds.
8. Single rotor helicopter.
9. Tandem rotor helicopter.
10. Tilt rotor.

Table 5-1
Aircraft Categories

5-4 Qualification in Mission/Type/Design/Series Aircraft In addition to the minimum flying hour requirements in paragraph 52 or 5-3, (and the training requirements listed in paragraph 3-7) the following are minimum prerequisites to qualify in any specific type aircraft. GFR approval depends on experience and proficiency equal to the type of flying contemplated or conducted. A comprehensive written examination on the applicable mission, type, design, and if appropriate, series of aircraft must be completed. Knowledge of all the aircraft systems, including normal and emergency procedures, must be demonstrated to an instructor pilot approved by the GFR. This demonstration may be made while the aircraft is on the ground, in the air, or in a compatible simulator, as determined by the GFR. Initial training will be in a specific mission, type, design, and if appropriate, series aircraft. Emphasize differences in series aircraft and any special equipment or systems during training. In addition to flight requirements listed below, the GFR may require night flying (up to 5 hours) and instrument practice (up to 5 hours) or until a satisfactory degree of proficiency is demonstrated if contractor pilots are to fly under these conditions. Instrument currency is a prerequisite for night currency.

a. Pilots. A minimum of 10 flight hours and 10 dual or supervised landings. For helicopters, 10 dual autorotations with power recovery will be added to this requirement. These requirements must be accomplished in the mission, type, design, and if necessary, series aircraft for which approval is requested.

b. Copilots. A minimum of 5 hours and five dual or supervised landings are required in the mission, type, design, and if necessary, series aircraft for which approval is requested.

c. Flight Engineer. A minimum of 100 hours are required in the mission, type, design, and if necessary, series aircraft for which approval is requested.

d. Other Flight Crewmembers. These personnel will receive initial ground and flight training to qualify the individual for the crew position. A comprehensive written examination must be completed. They must demonstrate a knowledge of applicable aircraft systems, including normal and emergency procedures, to an instructor qualified in the crew position.

e. Maintenance Test Pilot (MTP) (Army). In addition to the proficiency requirements of subparagraph a, above, MTPs must annually demonstrate academic and flight proficiency in the performance of maintenance test flight procedures.

|5-5 Currency Requirements PROCESS OWNER:_____.

a. Pilots or copilots will accomplish a minimum of one takeoff, one instrument approach (if required to operate by instrument flight rules), and one landing every 45 days in each type/design aircraft. To regain currency, a takeoff and landing must be accomplished under supervision of flight examiner (FE) or instructor pilot (IP). A pilot or copilot who exceeds 90 days without a takeoff and landing requires a flight evaluation as outlined in paragraph 3.7

b. Navigators, flight engineers, and other flight crewmembers will perform their primary aircrew function during a sortie every 60 days in each type/design aircraft. To regain currency, this function must be accomplished under the supervision of an instructor. Flight crewmembers who exceed 120 days without a sortie require a flight evaluation, as outlined in paragraph 3.7

|5-6 Physiological Training.PROCESS OWNER:_____.

All flight crewmembers/noncrewmembers will receive physiological training (exclusive of altitude chamber). Physiological training for pilots and copilots will include vertigon simulator and/or other disorientation training to the maximum extent possible. Flight crewmembers and noncrewmembers will receive altitude chamber training before flight operations above 18,000 feet mean sea level (MSL). A current military flight physical or FAA (or host nation equivalent) medical certificate, as appropriate, must be presented prior to the altitude chamber training. Refresher training is required every 3 years unless exempted by an individual Service. The expiration date is the last day of the month in which the training is required.

ADDITIONAL INFORMATION: See AFI 11-403 *Aerospace Physiological Training Program* for assistance in developing training programs for the above subject.

|5-7 Egress and Emergency Training PROCESS OWNER:_____.

<_____> shall ensure that all flight crewmembers and noncrewmembers receive annual egress training. Training will be tailored to the type(s) of aircraft and crew position that the individual maintains qualification. Training will include a written closed book examination with a minimum passing score of 85% corrected to 100%. Emergency training will cover a review of aircraft emergency equipment and procedures (e.g., fire extinguisher training, use of smoke masks, etc.).

ADDITIONAL INFORMATION: See AFPD 11-3 (Formerly AFR 55-27) *Life Support, Aircraft Egress and Escape Systems* and AFI 11-301, *Life Support Program* for assistance in developing training programs for the above subject.

|5-8 Special Training/Qualifications PROCESS OWNER:_____.

<_____> shall ensure that flight crewmembers are properly trained in flight operations which require special maneuvers or qualifications; e.g., formation, refueling, instrument, night, low level, night vision devices, laser operations, weapons delivery etc.

BLANK

CHAPTER 6

FLIGHT CREWMEMBER/NONCREWMEMBER APPROVAL

REQUIREMENT/BACKGROUND: This chapter addresses the processes involved in crewmember/noncrewmember approval and termination of approvals. Only GFR approved <_____> crewmembers, and noncrewmembers approved in writing by <_____>'s Requesting Official(s) are allowed to fly on aircraft which the U.S. Government assumes, by contract, some or all of the risk of loss. The Requesting Official is the Process Owner for this chapter.

6-1 Requesting Officials Only <_____>'s Requesting Official(s) may submit requests for flight crewmember approval and for qualification training. <_____> will send a list of this(these) official(s) to the GFR. <_____> will revise the list, as necessary, to ensure currency.

6-2 Government Approval for Qualification Training <_____>'s Requesting Official forwards two copies of a request for approval for qualification training (Appendix C, Fig. 9.) to the GFR for review/approval. The GFR keeps and files the original and returns the duplicate to <_____>. <_____>'s Chief Pilot ensures that flight crewmembers do not fly or initiate qualification training before receipt of Government approval. Observe the following guidelines:

- a. The GFR is allowed 10 workdays for processing, reviewing, and approving or rejecting <_____>'s requests for qualification training. (The GFR will document reasons for rejection of qualification training requests and include recommendations for resubmission.).
- b. Following approval, training must be initiated and completed within 90 days, without interruption. If interrupted for any reason, the Requesting Official will coordinate resumption of training with the GFR.
- c. Formal training courses offered by "Government activities" may be requested by <_____> to qualify or update <_____>'s employees when in the best interest of the Government. Unless otherwise provided in the contract, <_____> may be required to reimburse the Government for such training.

6-3 Government Approval for Flight Crewmember Status On completion of qualification training, the Requesting Official forwards two copies of a request for approval for flight crewmember status (Appendix C, Fig. 10.) to the GFR. The GFR indicates action taken and returns a signed copy to the Requesting Official within 10 workdays. <_____> will not use the flight crewmember in their aircrew specialties without instructor oversight until receipt of Government approval.

6-4 Contractor Approval for Noncrewmember Status Approval of Flight Noncrewmember (Appendix C, Fig. 11.), is kept in the noncrewmember's record and is used by

<_____> to approve qualifications for noncrewmembers. Noncrewmembers are approved by <_____>'s Requesting Official and the Chief Pilot (Chief Pilot co-signature is local procedure). The written approval to each <_____> and subcontractor for noncrewmember(s) is required before the individual's first flight, with a copy to the GFR. The Requesting Official makes sure that each person is required and qualified to serve in a specific capacity while aboard military aircraft. Requesting Official keeps the written approval on file until the individual is no longer authorized to fly. In addition:

a. <_____> will limit approved personnel to those needed to perform on the contract.

b. If the GFR determines that the written approval has been signed without adequate justification, he/she will ask <_____> to remove the affected individual from flight status. If <_____> still believes that the individual should be allowed to fly, the Requesting Official will resubmit the justification to the GFR who will refer the matter to the ACO. The Chief Pilot then makes sure that the above mentioned individuals are not allowed to fly, pending the result of any appeal.

c. The Requesting Official will review noncrewmember assignments every 6 months. An updated listing of this review will be sent to the GFR for approval.

d. Flight Safety Qualifications Card, (Appendix C, Fig. 12a & b.), is carried by <_____> noncrewmembers to demonstrate their qualifications to perform specific duties in-flight. Each accomplishment block on the card will be initialed by <_____>'s Requesting Official, the Chief Pilot, or the person conducting the training/examination.

6-5 Contractor Instructor Flight Crewmember

a. Only the most highly qualified, proficient, and experienced personnel are designated as instructor flight crewmembers as outlined in the Contractor's Procedures. The GFR approves the instructor and documents the certification of instructor status (Appendix C, see Fig. 10.).

b. <_____> instructor flight crewmembers may administer flight evaluations to other flight crewmembers employed by the contractor, if approved by the GFR.

c. Instructor pilots on Army contracts must possess a current FAA (or host nation equivalent) Flight Instructor Certificate with appropriate ratings or have completed a Department of the Army Instructor Pilot (IP) course in the category of aircraft. IP candidates who do not meet either of these requirements must complete an IP equivalency evaluation. These IP evaluations will be coordinated with the Directorate of Standardization and Evaluation at Fort Rucker, AL.

6-6 Termination of Approvals

a. Approvals of flight crewmembers are automatically canceled upon termination of employment, physical disqualification, or revocation of FAA (or host nation equivalent) rating.

The Requesting Official or Chief Pilot notifies the GFR of such action by the most expeditious means and confirms, in writing, within 10 calendar days.

b. <_____> may request the GFR to terminate any approval.
<_____>'s Requesting Official makes this request in writing.

c. After completion of an appropriate investigation, the GFR will withdraw the approvals of flight crewmembers who have:

(1) Failed to meet the general requirements of basic airmanship and normal flight operations and to exercise sound judgment in the conduct of test or other flights.

(2) Exhibited evidence of personal instability or similar undesirable tendencies or have conducted themselves contrary to the Government's interests in promoting safety.

d. The GFR may withdraw the approvals of flight crewmembers who have failed to accomplish semiannual proficiency requirements.

e. The GFR promptly notifies the Requesting Official and ACO when an approval is withdrawn. A written statement by the GFR to <_____> must set forth in detail the reasons for the action taken. If <_____> believes that the approval should not have been withdrawn, he/she may request a review of the matter by the ACO.

BLANK

CHAPTER 7

FLIGHT CREWMEMBERS PROFICIENCY REQUIREMENTS

REQUIREMENT/BACKGROUND: This chapter addresses the minimum proficiency and currency requirements crewmembers must meet to perform flight related duties onboard DoD aircraft. It has been reproduced *almost* verbatim from DLAM 8210.1 Vol. 1. Contractors may make their Contractor's Procedures more restrictive.

7-1 General Requirements PROCESS OWNER:_____.

<_____> flight crewmembers maintain the proficiency requirements of this chapter in the designated Government aircraft and crew position. Proficiency applies to flights in the same type/design aircraft. An exception would be similar (airframe, power plant, and flight characteristics) civil aircraft when approved by the GFR. When there is not enough flight time available to fulfill semiannual proficiency requirements due to program startup, phase down, or low production rate, <_____> may, with GFR approval, substitute 50 percent of the requirements of tables 71 through 7-3 in another similar Government aircraft, compatible simulator, or a civilian aircraft. NOTE: The similarity determination is valid for the life of the contract, but the approval for 50 percent substitution must be obtained for each applicable semiannual period. When flight crewmembers fail to maintain currency and proficiency, they will not be permitted to fly as flight crewmembers on Government aircraft except for appropriate recurrency training, as approved by the GFR. Required additional flying training time is not furnished at Government expense unless provided for in the contract. The requirements of this chapter are in no way a substitute for any currency or proficiency requirements as specified in applicable FARs (or host nation equivalent) as they apply to contractor flight crewmember FAA (or host nation equivalent) ratings. The following are proficiency requirements for various situations:

Type	Requirement
a. Single Government aircraft currency	100 percent
b. Multiple Government aircraft currency	50 percent per aircraft
c. One Government aircraft and one civilian aircraft (requires GFR approval)	50 percent minimum in the Government aircraft

7-2 Minimum Requirements PROCESS OWNER:_____.

As outlined below and in the applicable tables 71 through 7-3, minimum requirements apply to the period covered by the flight operation phase of the Government contract. Semiannual

minimums apply from 1 January through 30 June and from 1 July through 31 December, unless otherwise designated by the GFR. A flight crewmember performing on a contract for less than a semiannual training period will accomplish a prorated share of the minimum requirements based on the percentage of the training period. Accomplishment of these proficiency requirements should be distributed evenly throughout the calendar period.

a. For pilots and copilots, the GFR may allow 30 sorties to substitute for the semiannual 35 flying hours requirement. Sorties and hours cannot be combined to fulfill semiannual requirements.

b. Up to 50 percent of each semiannual pilot and copilot requirement (hours, precision approach, nonprecision approach, and instrument hours), as listed in the above referenced tables, may be substituted through the use of flight simulators. This activity must be approved by the GFR after ensuring simulator operation and cockpit configuration are similar to the applicable Government aircraft.

c. There is no regulatory requirement for <_____> pilots and copilots to fulfill the night, instrument, or approach requirements, except in those cases where night or instrument flying by <_____> personnel will be required by contract. Those pilots maintaining night flying proficiency must also maintain instrument proficiency except in aircraft not certified for instrument flight. Pilots and copilots logging night instrument time in the aircraft may simultaneously apply this event to both night and instrument time requirements. Training and proficiency requirements for night currency and other events will be accomplished in the <_____>'s flying program under the provisions of the contract and in accordance with these Contractor's Procedures

d. When applicable, training and proficiency requirements for operationally oriented flight events such as "pop up" weapons deliveries, low level operations, air refueling, and formation flying, etc., will be included (see table 7-5) in the Contractor's Procedures or appropriately referenced to other documents. The Government will not furnish additional flying time for contractor flight crewmembers to accomplish these requirements, unless provided for in the contract.

e. The GFR may allow six sorties to substitute for the semiannual flying hour requirement for navigators and other flight crewmembers. Sorties and hours cannot be combined to fulfill semiannual requirements.

f. Flight engineers must complete hourly and sortie requirements for the semiannual period.

|7-3 Evaluations PROCESS OWNER:_____.

Approved <_____> flight crewmembers must be evaluated on their ability to perform assigned duties and designated flight tasks. Duties and tasks include operating all the aircraft systems related to their crew position. They must perform all assigned aircrew functions safely and effectively. Evaluations will be accomplished in accordance with the criteria for

standardization/evaluation of flight crewmembers, as stated in Appendix ____ (not included in guide) of these Contractor's Procedures. Evaluations may be conducted as an integral part of the regularly scheduled flights.

a. Proficiency Flight Evaluation. All flight crewmembers will be evaluated in each aircraft in which they are maintaining qualification at intervals not to exceed 12 months. When a ~~test~~ aircraft is not available, the evaluator may use a chase aircraft. Document all phases of the flight evaluation on the DD Form 1821 (Appendix C, Fig. 8.). For those aircraft of similar mission, type, and design, but dissimilar series designations, the GFR determines which are considered like aircraft for the purpose of performing annual proficiency evaluations.

b. No-Notice Evaluations. Flight crewmembers are subject to no-notice flight evaluations. When a no-notice evaluation is administered by the Government instructor/evaluator, the Government may furnish the flying time (and incidental expenses) necessary to support this requirement, unless provided for in the contract.

c. Ground Evaluation. In conjunction with the flight evaluation, flight crewmembers will demonstrate their knowledge of emergency procedures, critical action procedures (e.g. Bold Face), and aircraft associated systems through a GFR approved <_____> open and closed book proficiency exam. The open and closed book exams must be successfully completed prior to the flight evaluation. The written examinations and the criteria for successful completion must be approved by the GFR. In addition, flight crewmembers will orally demonstrate their knowledge of Contractor's Procedures applicable to their crew position. The GFR or designated representatives may randomly administer written examinations to evaluate flight crewmembers' general knowledge of procedures and aircraft systems.

| 7-4 Proficiency Evaluator PROCESS OWNER:_____.

Proficiency flight evaluations or instrument flight evaluations, if applicable, are administered to the <_____> flight crewmember either by the approved instructor/evaluator designated by <_____> or by a qualified Government instructor/evaluator at the direction of the GFR.

| 7-5 Multiple Qualification PROCESS OWNER:_____.

<_____> flight crewmembers maintaining multiple qualification will accomplish a minimum of 50 percent of the requirements in tables 7 through 7-4 in each aircraft. Normally, currency in a maximum of two Government type/design aircraft will be authorized.

| 7-6 Requalification PROCESS OWNER:_____.

When flight crewmembers fail to maintain currency and proficiency they will not be permitted to fly as crewmembers on Government aircraft except for appropriate recurrency training, as approved by the GFR. The instructor or flight examiner, with GFR approval, determines requalification training requirements and the extent of the subsequent evaluation. The

Government will not furnish flying time for requalification training and evaluation unless provided for in the contract.

Note: Methods for regaining currency for DLA crewmembers can be found in DLAM 8220.3, paragraph 4-8: REGAINING CURRENCY/QUALIFICATION. Noncurrent aircrew personnel must regain currency based on the time elapsed since becoming noncurrent:

- a. Up to 2 Months. Review normal and emergency procedures and demonstrate proficiency in the noncurrent event(s) under supervision of an instructor.
- b. Two to Six Months. Complete applicable aircrew position written proficiency examination and proficiency flight evaluation administered by a flight examiner.
- c. Over 6 Months. Complete a course of training to be determined by DCMD Chief, FO&SS.
- d. In aircraft with only one set of flight controls, currency may be regained in a Service-approved simulator under supervision of a qualified instructor.
- e. The GFR may wish to use these guidelines for allowing contractor crewmember requalification.

Table 7-1. Pilot, Copilot Proficiency Requirements

Event	Semiannual
Total Hours or Sorties	35 or 30
Landing-Total	12
Landing-Night	3
Night Hours	5
Instrument Hours	6
Precision Approach	6
Nonprecision Approach	6

Table 7-2. Navigator Proficiency Requirements

Event	Semiannual
Hours or Sorties	30 or 6
Cross-Country/Navigation Leg*	2
*Applicable as required by contract.	

Table 7-3. Flight Engineers' Proficiency Requirements

Event	Semiannual
Hours	30
Sorties	6

Table 7-4. Other Flight Crewmembers' Proficiency Requirements
(see paragraph 1-5)

Event	Semiannual
Hours or Sorties	30 or 6

Table 7-5. Other Proficiency Requirements
(if contract requires maintaining proficiency in these skills)

Event	Semiannual
Weapons deliveries	_____
Low level navigation	_____
Air Refueling	_____
Formation flights	_____
Laser Operations	_____

BLANK

CHAPTER 8

GROUND OPERATIONS

REQUIREMENT/BACKGROUND: Most mishaps to Government aircraft covered by the Ground and Flight Risk Clause occur on the ground. It is imperative contractor employees are fully qualified to perform work on Government aircraft and that they follow established safety procedures when doing so. Some of the following procedures have been addressed earlier in this guide but have been restated here for convenience.

8-1 Application This chapter applies to contractor personnel who perform ground maintenance functions on Government aerospace vehicles and/or operate ground support equipment.

8-2 Procedures PROCESS OWNER:_____.

These written Contractor's Procedures are designed to ensure that only trained, qualified, and/or certified personnel perform ground operations and aircraft rescue and firefighting. As with the flight operations Contractor's Procedures these Contractor's Procedures must be approved by the GFR and cannot be altered without the GFR's concurrence.

NOTE: These Contractor's Procedures can be separate from <_____> flight operations Contractor's Procedures and can be administered, with the other provisions of this chapter, by a <_____> organization other than flight operations. This does not negate the requirement for the ground operations portions of the Contractor's Procedures to be separate and distinct from industrial procedures (see DLAM 8210.1, Vol 1, paragraph 3-1).

a. <_____> medical physical requirements. Ground personnel will receive a company physical performed by the <_____> Medical Department prior to certification. All <_____> personnel involved in a physiological incident or aircraft mishap where the expected damage to Government aircraft exceeds \$1,000, will be examined by the <_____> Medical Department and submit to drug and alcohol screening. The results will be relayed to the GFR.

b. Qualification and requalification requirements. <_____> shall provide each employee (including subcontractors) initial indoctrination and continuation training sufficient to enable him/her to perform ground operations in a safe manner. Initial training will include written and practical tests prior to performing work.

c. Certification Requirements. <_____>'s Training Division is responsible for training and certifying personnel annually in the procedures outlined below.

Contractors perform many operations related to aircraft not specifically mentioned in DLAM 8210.1, Vol 1. All hazardous operations performed in, on, and around contract aircraft must be addressed in the Contractor's Procedures. Examples include, but are not limited to: fuel tank/cell repair and confined space entry, hangaring of fueled aircraft, aircraft cleaning, painting

and paint removal, corrosion removal/treatment, use of lifting devices (hoists, cranes, slings), handling, storage and use of flammable/combustible liquids, welding, handling, storage and use of composite materials, storing and recharging batteries, and snow removal. As a minimum, contractors must address the following (applicable) ground operations in the Contractor's Procedures to ensure they are safely accomplished:

d. All <_____> Department heads and supervisors are responsible for ensuring employees comply with the following procedures:

(1) Powered aerospace ground support equipment operation. (Appendix F).

(2) Aircraft weapons, munitions, cartridge activated devices, and explosive handling (Appendix G); laser (Appendix E).

(3) Aircraft refuel/defuel, fuel system purging, and maintenance. (Appendix H).

(4) Oxygen system servicing. (Appendix O).

(5) Aircraft towing. (Appendix I).

(6) Aircraft marshaling. (Appendix K).

(7) Aircraft jacking. (Appendix J).

(8) Egress system maintenance (ejection and extraction systems). Includes explosive operated canopy removal systems. (Appendix L) (no example at this time).

(9) Aircraft engine and auxiliary power unit (APU) operation. (Appendix M).

(10) Aircraft taxiing by ground personnel, if applicable. (Appendix N).

(11) Aircraft hydraulic system servicing and ground cooling. (Appendix P) (no example at this time).

e. Severe weather plan, to include mooring and tie down procedures. (Appendix Q).

8-3 Engine Operations PROCESS OWNER:_____.

Ground personnel authorized by <_____> to start, operate (including taxi of airplanes), or test aircraft installed engines and/or aircraft APUs will annually (or as noted below):

a. Receive practical instructions in starting and ground operation of engines, operation of steering, aircraft brake systems (both normal and emergency), radio operation, engine fire procedures, and all other applicable emergency procedures.

b. Receive ground egress training (aircraft equipped with ejection or extraction systems, and/or explosive operated canopy removal systems).

c. Receive ground evacuation training (aircraft not equipped with ejection or extraction systems).

d. Pass a written examination, to include bold face and critical action emergency procedures.

e. Demonstrate (semiannually) their proficiency, including knowledge of warnings, cautions and notes, and emergency Procedures to certifying personnel. Personnel authorized to certify engine operators will be qualified, as above, and be approved by the GFR.

f. Have operated the same type of engine in the same design aircraft at least once during the last 45 days. NOTE: Helicopter engine ground operations will be performed by pilots qualified and current in the same type/design/series aircraft).

|8-4 Egress Familiarization Training PROCESS OWNER:_____.

Personnel (other than those certified to perform egress system maintenance and engine operation) who require access to cockpits equipped with ejection or extraction systems and/or explosive operating canopy removal systems will complete a general familiarization course annually on safety and knowledge of the hazards of these systems.

|8-5 Records/Documentation PROCESS OWNER:_____.

<_____> Records Department shall maintain a record folder for each employee performing ground operations on Government aircraft which contains:

a. A completed copy of the employee's approval to perform ground operations signed by the supervisor and training officer.

b. Medical certification by Corporate Medical Department.

c. Certification of training and qualification for the procedures listed in paragraph 8-2, d., and 8-4.

d. <_____>'s Records Department will make these records available to the GFR and other appropriate Government personnel at the request of the GFR.

BLANK

CHAPTER 9

ADDITIONAL ADMINISTRATIVE MATTERS

REQUIREMENT/BACKGROUND: This chapter addresses the waiver process. Before requesting a waiver, consider the following:

- a. When the contract specifically addresses requirements differently than the DLAM, the contract always takes precedence. No waiver is required to meet the requirements of the contract. (GFR note: When the contract eliminates or alters, to the point of being unusable, applicable safety requirements placing the aircrew/ground personnel or aircraft at undue risk, a Contract Deficiency Form 1716 should be submitted through the ACO to PCO.).
- b. Waivers are not required for procedures in DLAM 8210.1, Vol. 1, that are clearly not applicable to current operations. For example: training programs for crewmembers are not required if there are no contractor crewmembers. This does not mean that contractors do not have to provide mission planning facilities when they do not provide crewmembers.
- c. If a waiver is requested for a procedure that is "inconvenient" to accomplish but never-the-less required (like weather minimums), there is little chance of approval.
- d. Waivers are much more likely to be granted when they are well justified and an alternate method is suggested which will minimize risk in a manner similar to the Procedure being waived.
- e. GFRs do not write waivers for contractors.
- f. GFRs cannot approve waivers to DLAM 8210.1 or other requirements of the contract.

9-1 Requests for Waivers A waiver is a written request for relief from a requirement of a contract or contracts. When approved, waivers will be valid no more than the length of the applicable contract. Send all waiver requests through the GFR to the ACO. The ACO will send the waiver to the procuring activity for coordination and approval. Waivers should only be granted on an exception basis and must be in writing.

- a. Army- The Procuring Activity MACOM Aviation Office or U.S. Army Aviation and Troop Command (ATCOM) for ATCOM contracts.
- b. Air Force- Procuring Activity MAJCOM, Director of Operations.
- c. Navy- NAVAIRSYSCOM (AIR 4213), Aircraft Controlling Custodian.

9-2 Reports. OMB approval 07040188 applies to DD Form 1821, Contractor/Crewmember Record.

BLANK

PREVENTION OF FOREIGN OBJECT DAMAGE/
CONTROL OF FOREIGN OBJECT DEBRIS
&
TOOL CONTROL

PROCEDURES



TOOL CONTROL/FOD PREVENTION

The following procedures do not match all the requirements of MIL-STD-980. They are meant to serve as example procedures when 980 is not on contract.

1.0 REFERENCE. MIL-STD 980

2.0 PURPOSE. The purpose of this procedure is to define the tool control/FOD prevention program for all <_____> maintenance activities. The primary objective of the tool/hardware control program is the prevention of aircraft damage which may result from lost tools, hardware, and miscellaneous debris.

3.0 SCOPE. Information presented in this document includes the procedures, methods and detailed instructions for the Tool Control/FOD Prevention Programs, including the responsibilities of key personnel. This procedure applies to all aircraft maintenance and servicing throughout the <_____> Facility.

4.0 RESPONSIBILITIES.

a. Controlled Area Employees: NOTE: Controlled area shall be designated by appropriate signs and access limited to personnel required to perform and supervise aircraft maintenance.

(1) Inspect maintenance stands, ground support equipment, work benches or special test equipment for damage and removal of debris and loose objects prior to placing in service. Keep work areas clean and free of loose items/hardware/debris not being used to perform maintenance on the aircraft.

(2) Perform proper inspection and cleaning of the aircraft and the surrounding area subsequent to a given maintenance task and place all residue, cleaning rags, etc. in the appropriate receptacle.

(3) The first inspection on an aircraft after it has move into a new station must be recorded on a Foreign Object Debris Form. Annotate number and type of debris found, on the form. This form is used for data analysis of the FOD control program, and helps management determine where emphasis needs to be placed to reduce FOD incidence. Data analysis is one of the primary keys to controlling FOD.

(4) Install appropriate metal plugs and/or caps on all aircraft and ground support equipment openings, ports, lines, hoses, electrical connectors and ducts to prevent the entry of foreign objects into the aircraft systems and ensure that these devices will remain in place at all times, except when removal is required for maintenance access.

(5) Inspect all removed aircraft panels and/or components for damage and removal of foreign debris prior to reinstallation. Care must be exercised during installation to assure that all fasteners are adequately tightened.

(6) All assemblies will be checked and inspected by <_____> Quality Assurance to assure that no foreign objects remain prior to an area being closed up. All areas identified as "Safety of Flight" require Government Quality Assurance inspection prior to closure.

(7) Permanently mark (etch) all personal tools with the last four digits of the social security numbers and the first letter of the last name. All tools larger than 1/2-inch require this type of identification. All tools under 1/2-inch in size will be controlled per paragraph 4.0 a.(10)(b). Any variation to the above stated markings on personal tools must be approved and documented by the manufacturing supervisor of the controlled area. This documentation will be made on the employee's tool box inventory list.

(8) <_____> provided tools shall be permanently and legibly identified. Those tools not identified (i.e., countersinks, etc.) will be recorded on the tool form per paragraph 4.0a.(10)(b).

(9) All <_____> employees will have in their possession an accurately completed tool form (Attachment A), while working on or entering an aircraft or controlled area.

(10) The tool form will be filled out daily and will include all personal tools, company-owned tools, shop aids, Government owned tools or equipment and personal property carried by the employee. Specific shop aids will be identified when entered on tool form.

(a) Employees shall take into the controlled area only tools and hardware required to perform the specific task. All consumable hardware must be separated into like items, identified and carried or stored in a spill-proof container. Containers with spring-loaded lids are recommended.

(b) Items such as drill bits, clecoes, apex points, exacto blades, etc. must be counted and placed in bags or other container, then entered on the tool form as 1 container of (#) ____ drill bits. At the completion of the task, items must be recounted to determine if any have been lost or broken.

(11) The tool form will be updated or a new form initiated as the tool requirements change. Accountability of all tools/ hardware and personal items will be maintained at all times.

(12) At the end of each task or job, and at shift change, each employee will ensure that all tools/hardware, hardware containers and personal items are accounted for. At this time, the employee will sign the tool form and present the form to the manufacturing supervisor of the controlled area or deposit the form in the appropriate container. Tool accountability shall be validated by the manufacturing supervisor, crew chief, tool crib attendant or quality assurance representative signing the employee's tool inventory.

(13) Monitoring/test equipment installed or placed on the aircraft that must be removed prior to ground run or flight will be documented for installation and removal.

(14) Government/contractor Furnished Tools (when available):

- (a) Check out government furnished tool containers from the GFE/CFE ready issue room.
- (b) Check tool containers for lost, missing, broken or defective tools during check out and return to the GFE/CFE ready issue room.
- (c) Check in the government furnished tool containers to the GFE/CFE ready issue room at the completion of each task or at the end of the work shift.
- (d) Report lost or missing tools in accordance with paragraph 5.0e.
- (e) Report broken or defective tools to the GFE/CFE ready issue room custodian and document discrepancy in writing.
- (f) Use tool tags included in the government tool containers to check out additional loose tools from either the <_____> maintained tool crib or GFE/CFE ready issue room.
- (g) Will not attempt to checkout Government/contractor furnished tools while possessing previously checked-out and now overdue tools.

(15) Ensure personal items (pens, pencils, safety equipment, etc.) are annotated on the tool control form.

b. Manufacturing Supervisor:

- (1) Conduct random audits of employee tools to assure proper and correct entries are carried out.
- (2) Collect completed tool forms at the end of the shift and review for compliance. Retain tool forms for ninety (90) days after which time they may be discarded.
- (3) Coordinate with the maintenance crew to provide sweeping of the controlled area around the aircraft.
- (4) Coordinate a pre-shift FOD walk or sweep of aircraft operating area.
- (5) Ensure that all personnel with access to the controlled areas are trained, understand and adhere to this procedure. This requirement also applies to all personnel temporarily assigned to a controlled area.
- (6) Ensure all employees clean-as-they-go, clean areas after each task and prior to the end of each shift.

(7) Ensure Foreign Object Debris Forms are completed whenever an aircraft arrives at a new station. Turn in completed forms to Quality Assurance.

(8) Ensure when calibrated tools are required, they are properly calibrated IAW: MIL-STD-45662A (Calibration System Requirements) and MIL-HDBK-52B (Evaluation of contractor's Calibration System).

c. Quality Assurance:

(1) Conduct weekly random audits of employee tools to ensure compliance.

(2) Coordinate search for lost tools/hardware items and assure proper documentation on Lost Tool/Item Report.

(3) Compile data collected on Foreign Object Debris Forms for analysis.

(4) Will ensure all tools requiring calibration are done so IAW: MIL-STD-45662A (Calibration System Requirements) and MIL-HDBK-52B (Evaluation of contractor's Calibration System), or appropriate Service directives. QA will establish and maintain a system for the calibration of all M&TE and measurement standards used in the fulfillment of contractual requirements. The calibration system shall be coordinated with the contractor's entire inspection or quality control system and shall be designed to provide adequate accuracy in use of M&TE and measurement standards. All M&TE and measurement standards applicable to the contract, whether used in the contractor's facility or at another source, shall be subject to such control as is necessary to assure conformance of supplies and services to contractual requirements. The calibration system shall provide for the prevention of inaccuracy by ready detection of deficiencies and timely positive action for their correction. The contractor shall make objective evidence of accuracy conformance readily available to the government representative.

d. GFE/CFE Ready Issue Room Custodian:

(1) Permanently mark all government furnished tool containers and tools with activity code and container number.

(2) Check tool containers out and in from maintenance personnel.

(3) Issue Government/contractor owned tools, as needed to aircraft technicians.

(4) Check tool containers for lost, missing, broken or defective tools during check out and returned from <_____> maintenance personnel.

(5) Control access to GFE/CFE ready issue room to authorized personnel only.

(6) Maintain a log of all personnel entering the GFR/CFE ready issue room.

(7) Restrict tool issue for employees with overdue tools.

e. Foreign Object Damage Manager. _____ is <_____>'s FOD Manager/Process Owner and will serve as the FOD prevention focal point. The FOD Manager is responsible for developing and implementing <_____> plans and programs to prevent hardware damage during associated design, manufacturing, assembly, test, acceptance, packaging, handling, storage, transporting, maintenance, flight line, and launch operations. In addition the FOD Manager will:

(1) Review and assess <_____>'s FOD prevention program annually in conjunction with the annual Procedures review, and recommend necessary revisions.

(2) Conduct pre-scheduled but unannounced audits of work areas to assess effectiveness of the FOD prevention program.

(3) Assure implementation of corrective actions for FOD prevention throughout the <_____>'s organization.

(4) Ensure other <_____>'s organizations investigate and study any potential preventive measures which can result in elimination of FOD hazards.

(5) Ensure that FOD incidents are thoroughly investigated and that incident reports are accomplished.

(6) Ensure that causes of FOD incidents are thoroughly analyzed to define essential corrective measures.

(7) Ensure corrective actions, resulting from incident investigations, are taken.

(8) Notify affected <_____> organizations and personnel of unique FOD prevention requirements.

(9) Develop training plans and assign responsibilities for publication of special FOD prevention instructions.

(10) Review results of the FOD incident investigations and evaluate adequacy of correction actions.

(11) Evaluate data collected on Foreign Object Debris Forms and alter Procedures to respond to trends.

(12) Review and approve FOD prevention training curricula, designate training personnel and assure that contractor personnel receive required training.

(13) Assure that written procedures provide for adequate records attesting to the current status and adequacy of the FOD prevention program.

5.0 PROCEDURE. A large part of an effective Foreign Object Damage/Debris (FOD) Prevention Program is the procedure and practice of tool accountability and hardware control. The fundamental responsibility of tool accountability and hardware control lies with the individual who brings these items into a controlled area.

a. The steps and responsibilities outlined in the following sections are provided to maintain accountability of all tools and equipment that are carried into a controlled area. The primary purpose of this accountability is to maintain positive control so that foreign object damage is precluded. <_____> employees at all levels are responsible for, and must enforce the procedures included in this document.

b. Hardware control will be in accordance with paragraph 4.0a.(10). Accountability is required for all personal tools, Government owned tools, <_____> owned tools, perishable tools, and personal property such as badges, combs, mini notebooks and other type objects carried on persons. If accountability is lost, it will be reported and processed as described.

c. Controlled area activities require special emphasis by all personnel due to the possibility of foreign object damage.

(1) All personnel working or passing through these areas will

(a) Be aware of the need to keep these areas clean.

(b) Pick up all loose objects and foreign objects and properly secure or dispose of them.

(c) Report all observed potential FOD conditions to the manufacturing supervisor of the controlled area for further management action when such conditions cannot be corrected on the spot. Further management action shall be documented in writing to the appropriate organization for immediate response.

(2) The escort for any visitors shall be responsible for briefing and visitor adherence to appropriate FOD prevention procedures. Visitors will be challenged to assure compliance. Violators are subject to removal from the area.

d. Housekeeping:

(1) Debris such as rivet heads, bits of safety wire, etc., shall be removed as they are generated. This shall be done before an area is closed and at the end of the present shift, or prior to the employee leaving the job.

(2) Each employee performing work that may generate debris shall carry a FOD bag into which foreign objects shall be secured for removal from the area and proper disposal.

(3) Maintain housekeeping in shop areas to keep the production of industrial scraps and wastes to a minimum. Use suitable metal containers to catch scraps and wastes as they accumulate. Containers with self-closing lids will be used for the disposal of combustible wastes, rags, and other flammable materials. Use same type containers for storing clean rags and waste for immediate use in industrial shops. Supply plainly marked metal waste cans fitted with self-closing lids for separate disposal of oil and paint-soaked rags, waste paper, and similar materials. At the close of each shift, empty these containers and move them to a safe location outside of the building.

e. Spills shall be cleaned up immediately. Drip pans shall be used where spills or drips are likely to occur. Use only non-combustible absorbents to dry up spills of flammable materials.

f. Employee Reporting Lost or Missing Tools or Hardware:

(1) If at any time during the performance of a task, a tool, hardware, or any other like item is discovered missing, a search shall be initiated in accordance with paragraph 5.0 f. of this procedure.

(2) Lost tools or articles that are traced to an individual employee and not reported lost by the employee prior to the end of the task or shift will result in disciplinary actions up to and including termination of employment.

(3) No disciplinary action will be taken if the tool or item is reported lost or missing prior to the end of the task or shift.

g. Tool/Items Discovered Missing. The following procedure will be followed in the event an item is discovered missing and is reported lost by an individual.

(1) The individual reports the lost item to his supervisor who documents the incident. A copy of the lost item report will be sent to the FOD Manager.

(2) The Manufacturing supervisor will notify the FOD Manager, DPRO Quality Assurance, and the GFR within one (1) hour documenting the incident. Night shift notification must be made by leaving a detailed message for DPRO Quality Assurance the GFR.

(3) Concurrently, Quality Assurance will post the original of the lost item report in the aircraft workbook and distribute copies per the distribution listed on the form. Notification of lost tool will be entered as an item in the aircraft workbook and designated with a "red X". The lost tool report will be attached with that workbook item.

h. The aircraft will not be moved unless necessary. The area surrounding the aircraft will be searched before the aircraft is moved.

(1) The Manufacturing supervisor will take the action necessary to have all suspect tool containers checked for the specific tool.

(2) The aircraft will be thoroughly searched for the missing tool. The Quality Assurance supervisor will organize the search based on the interview with the individual reporting the lost tool.

(3) Two teams will be formed. Each team will perform overlapping inspections following the complete check list or the portions selected by the Quality Assurance supervisor starting where the item was last used. All appropriate panels and fairings will be removed during the inspection. The report and attachments become part of the aircraft records.

(4) If the lost item is not found Government Quality Assurance and GFR, and <_____> Quality Assurance, FOD Manager, Flight Test Engineer, and Manufacturing Supervisor will meet and review the action taken and determine the appropriate steps necessary to release the aircraft.

(5) If at any point in this procedure the lost item is found, the incident report will be updated, the aircraft will be cleared of the red "X", and the incident will be briefed at the next FOD awareness training session.

ADDITIONAL INFORMATION: See MIL-STD-980 *Foreign Object Damage (FOD) Prevention in Aerospace Products*, USAF T.O. 00-35D-54, *FOD Reporting*, T.O. 32-1-2, *Use of Hand Tools*, T.O. 32-1-101, *Use and Care of Hand Tools and Measurement Tools*, AFI 121-101, *Foreign Object Damage (FOD) Prevention Program*, AFM 177-111, *Tool Room Operation*, US Army TB 43-180, *Calibration and Repair Requirements for the Maintenance of Army Material*, MIL-HDBK-52B, *Evaluation of Contractor's Calibration System*, MIL-STD-45662A, *Calibration Systems Requirements*, US Navy NA 17-35MTL-2, *Metrology Requirements List (METRL)*, NA 17-NCE-1, *Navy Calibration Requirements Equipment List*, NA 17-35MTL-1, *Calibration Manual*, for more information on developing FOD and Tool Control Procedures.

TOOL CADDIE CHECKLIST

EMPLOYEE NAME	NO.
ADAPTERS	
CUTTERS	
DIKES (WIRE CUTTERS)	
DRILL	
DRILL BITS	
DRIVERS	
FLASHLIGHT	
FILES	
HENWAY	
HEX KEYS	
KNIVES	
MAGNETS	
MALLETS/HAMMERS	
METER	
MIRROR	
PENS/PENCILS	
PLIERS (CLECOE)	
PLIERS (NEEDLE NOSE)	
PLIERS (MISC.)	

	NO.
PUNCHES	
RATCHETS	
SAFETY WIRE	
SANDER	
SANDING DISCS	
SCREWDRIVERS (PHILLIPS)	
SCREWDRIVERS (SLOTTED)	
SCRIBES	
SOCKETS	
SPEED HANDLE	
VACUUM	
VICE GRIPS	
WATER PUMPS	
WRENCHES (CRESCENT)	
WRENCHES (BOX END)	
WRENCHES (ALLEN)	

JOINT

<—————>

&

GOVERNMENT

(PRE)-MISHAP RESPONSE

PLAN



INSTRUCTIONS

CHECKLISTS

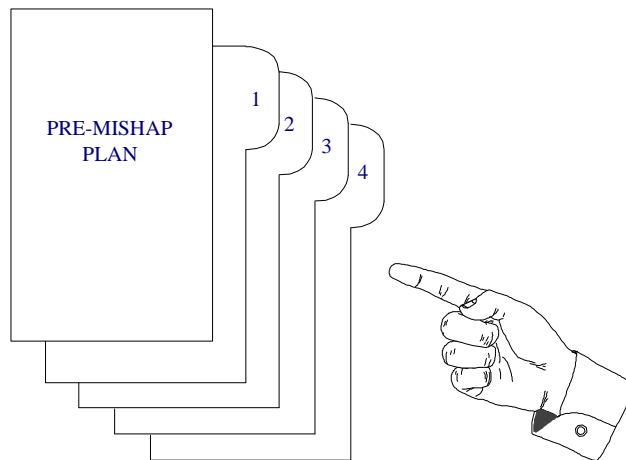
DIRECTIONS

APPENDIX B
PRE- MISHAP PLAN

THIS PLAN HAS BEEN DEVELOPED TO:

- 1. SAVE LIVES.
- 2. PREVENT FURTHER INJURY OR PROPERTY DAMAGE.
- 3. ENSURE THE APPROPRIATE PERSONNEL AND AGENCIES ARE NOTIFIED BY SELECTING THE APPROPRIATE TAB AND PROCEEDING WITH THE INSTRUCTIONS.
- 4. GIVE DIRECTION FOR MISHAP/ACCIDENT INVESTIGATIONS.

IF A MISHAP OCCURS PROCEED TO THE APPROPRIATE TAB AND ACCOMPLISH RESPONSE ACTIONS



cc: <_____>#_____
Local DCMC office #_____
ARFF #_____
Ambulance Response#_____
Tower #_____
Security #_____

RESPONSE TABS

1. ALL EMPLOYEES
2. PRIMARY CRASH ALARM SYSTEM
3. LOCAL AIRPORT TOWER
OVERDUE AIRCRAFT
IN FLIGHT EMERGENCY (IFE) RESPONSE
4. LOCAL AIRPORT TOWER
MISHAP RESPONSE
5. AIRCRAFT RESCUE & FIRE FIGHTING STATION
6. AMBULANCE RESPONSE
7. CRASH RESCUE BOAT
SEARCH AND RESCUE (SAR) RESPONSE
8. SECURITY
9. <_____> AVIATION SAFETY OFFICER
<_____> Director of _____.
10. AVIATION SAFETY OFFICER (GOVERNMENT)
11. GOVERNMENT FLIGHT REPRESENTATIVE
12. <_____> MAINTENANCE MANAGER
13. <Local DCMC Office> RESPONSIBILITIES

ATTACHMENTS

1. AIRCRAFT EMERGENCY ASSISTANCE (TELEPHONE) LIST
2. MISHAP TELEPHONIC NOTIFICATION FORMAT
3. INVESTIGATION POLICY
4. ASSOCIATED DIRECTIVES
5. MISHAP RESPONSE KIT CONTENTS
6. TEXT OF OPREP-3 TELEPHONE CALL

BLANK

TAB 1

ALL EMPLOYEES

PROCEDURES

THE FIRST PERSON TO BECOME AWARE OF A MISHAP WILL:

1. Notify Emergency Control Center or Security (phone: _____) and/or insure the alarm system has been activated. Give the following information:

- a. Location of the accident.
- b. Type of aircraft.
- c. Severity of the accident, i.e., total loss, fire, etc.
- d. Extent of injuries, if known.

2. Notify the <Local DCMC/District> Office at:

3. Notify <_____> Director of _____ at:

4. Notify the Government Flight Representative (if not accomplished at step 2) at:

5. Direct all questions from Press to <_____>/<Local DCMC> public affairs office.

NOTE: When making phone calls, give accurate information and don't hang up until the person you are calling says he/she has all the information needed.

BLANK

TAB 2

PRIMARY CRASH ALARM SYSTEM

The Primary Crash Alarm System is: A direct wire intercom circuit between <_____> Radio, Security, Fire Department and <Local DCMC> Operations.

PROCEDURES: <_____> RADIO (phone#: _____) WILL:

1. Activate the primary alarm intercom, and report when a crash or in-flight emergency is observed from the airfield or reported to it by radio.

In the event of intercom failure, the telephone numbers listed for each agency (Attachment 1 of this Appendix) will be an alternate method of communication.

2. Post Crash Grid Map.
3. Radio crash location data to firefighting and rescue crews.
4. Obtain all available weather information as close as possible to the time and location of the accident.
5. Notify the POCs listed on the Aircraft Emergency Assistance List (Attachment 1).

BLANK

TAB 3

LOCAL AIRPORT TOWER RESPONSE MISSING/OVERDUE AIRCRAFT

LOCAL AIRPORT TOWER (Phone # _____) WILL:

1. If an aircraft fails to perform a radio check each 15 minutes during local operations, attempt to contact the aircraft on (radio frequency): _____ or Guard.
2. Attempt to make contact through RAPCON or ARTCC.
3. If unable to make contact with aircraft, contact the < _____ > Director of _____ to determine if there has been a change in flight profile.
4. If no contact is made or the aircraft is overdue 15 minutes activate the Primary Crash Net.
5. Coordinate with the < _____ > Director of _____ to ensure priority clearance of SAR aircraft.
6. Coordinate with airborne resources to commence SAR efforts.

IN-FLIGHT EMERGENCY (IFE)

1. Activate the Primary Alarm Intercom, and report in-flight emergency is observed from the tower or reported to it by radio.
2. Alert all traffic to the emergency and grant traffic priority to rescue and search aircraft.
3. Close field to traffic, if necessary.
4. Notify < _____ > Flight Operations at: _____. Request experienced pilot report to tower to assist in IFE response.
5. Check the suitability (NOTAMS, weather, distance, etc.) of emergency airfields. Appendix D (of these Contractor's Procedures) contains the locations and descriptions of airfields that can be used for unscheduled landings.
6. Ensure the barrier is raised if necessary.
7. Use flight plan to determine number of souls on board; relay to Crash Net.
8. Prepare phone patch between aircrew, < _____ > Flight Test, engineering support, and/or any other agency if requested by aircrew.

BLANK

TAB 4

LOCAL AIRPORT TOWER RESPONSE

AIRCRAFT MISHAP:

1. Activate the Primary Alarm Intercom, and report when a crash or in-flight emergency is observed from the tower or reported to it by radio.
2. Use flight plan to determine number of souls on board; relay to Crash Net.
3. Post Crash Grid Map.
4. Radio crash location data to firefighting and rescue crews.
5. Alert all traffic to the emergency and grant traffic priority to rescue and search aircraft.
6. Close field to traffic, if necessary.
7. Notify <_____> Flight Operations at:

BLANK

TAB 5
AIRCRAFT RESCUE
&
FIRE FIGHTING STATION

INSTRUCTIONS:

AIRCRAFT RESCUE & FIRE FIGHTING STATION (Phone #_____) WILL:

1. Respond immediately to the alarm.
2. Conduct rescue and fire suppression as necessary.
3. Supervise crash area until fire is under control, if applicable, or until area is safe for entry by authorized personnel.
4. Request additional firefighting equipment (including water/AFFF resupply vehicles) when necessary because of location of mishap or force of nature.
5. Determine and account for the number of personnel on board the aircraft by coordinating with <_____> Radio or Tower.
6. Ensure Emergency Ordinance Disposal (EOD) actions are taken including:
 - a. Contact local DCMC office & <_____> ASO's to determine if aircraft carried ammunition/weapons.
 - b. Search crash site and contain/ensure safety of all other explosive devices (ejection seat triggers, squibs, etc.).
 - c. Advise investigation team of efforts.
7. Ensure all personnel allowed into mishap site are briefed on aircraft hazards, including:

Live ordinance	Composite materials
Aircraft fuel/oils	100% Oxygen systems
Other hazardous chemicals (e.g. hydrazine)	Jagged edges
Metals (e.g. beryllium, depleted uranium)	Possibly "Hot" electrical wiring.
Optical coatings	Reporters
8. Assist Ambulance Response Team with Triage and first-aid if required.

BLANK

TAB 6

AMBULANCE RESPONSE

INSTRUCTIONS

AMBULANCE SECTION (Phone # _____) WILL:

1. Dispatch medical personnel to the crash scene via ambulance or helicopter, whichever permits earliest arrival and evacuation of injured.
2. Inform ambulance crews of best routes to reach each general area shown on grid map sections.
3. Request additional ambulance and medical assistance when necessary because of crash location or nature.
4. Supervise removal and transportation of injured and provide emergency treatment.
5. Ensure when ARFF crews are assisting in first aid/triage, they are properly equipped to protect from potential blood contamination.
6. Coordinate with on-site DoD and <_____> personnel prior to disturbing human remains, to allow time to record (photograph) the crash positions of victims.
7. Coordinate with local coroner for disposition of human remains.

BLANK

TAB 7

SAR

INSTRUCTIONS:

CRASH RESCUE BOAT

CRASH RESCUE BOAT (if flying routinely over water) (Phone# _____)

SECTION WILL:

1. Dispatch rescue team when required.
2. Radio preliminary report of crash circumstances to the tower.
3. Rescue and transport injured personnel to specific transfer point where faster transportation to hospital is available.

SAR AIRCRAFT RESPONSE

EMERGENCY UTILIZATION OF CONTRACT AIRCRAFT

If circumstances dictate <_____> may be requested to provide aircraft for emergency assistance. In this case the Director of _____ will dispatch an aircrew and assign an aircraft.

If <_____> aircraft are unavailable or inappropriate for SAR efforts, contact the Air Force Rescue Coordination Center (AFRCC*) in Langley, VA, (800) 851-3051, (804) 764-8112 or DSN 638-4815 for nearest SAR assets.

THE AIRCREW WILL:

1. Follow approved <_____> flight Procedures in all search and rescue operations.
2. Radio preliminary report of crash circumstances to the tower.
3. (Helicopter only) Rescue and transport injured personnel to specific transfer point where faster transportation to hospital is available.

*AFRCC is the single DoD point of contact for ~~INLAND~~ SAR in the 48 states. For SAR outside the 48 states AFRCC has POC information. If normal flight profiles are conducted outside this area or off the U.S. coast contact AFRCC when developing actual Pre-Mishap plans to obtain the appropriate information.

BLANK

TAB 8

SECURITY

INSTRUCTIONS:

<_____> SECURITY (Phone# _____) WILL:

1. Dispatch to assembly point guards as needed to:

- provide adequate security at the crash scene
- prevent pilferage of wreckage
- preserve crash evidence
- cover/protect known classified material

2. Accompany crash convoys to accident scene or contact appropriate local authorities.
3. Insure that all security personnel know best routes to all areas within grid map sections.
4. Determine off-facility police departments most proximate to each grid map area.
5. Ensure only personnel authorized by the local DCMC Commander, GFR, ASO, <_____> Director of _____, and <_____> Aviation Safety Officer are allowed on the crash site once the ARFF crew has determined the site is safe.
6. Coordinate with ARFF crews on aircraft hazards and ensure all personnel entering the area are properly briefed.
7. Direct all questions from the Press to <_____> & Government Public Affairs office.

BLANK

TAB 9

<_____> AVIATION SAFETY OFFICER

&

DIRECTOR OF _____

INSTRUCTIONS:

<_____> Aviation Safety Officer and Director of _____,

(Phone# _____/_____) WILL:

1. Insure that crash rescue operations are taking place.
2. Insure availability of, and dispatch to assembly point, qualified personnel to assist crash investigation crew at accident site.
3. Report to <_____> Radio or Tower mission information from mission brief (e.g. number of souls on board, ordnance etc.)
4. Insure all personnel (ground & flight) involved in the mishap are immediately scheduled for medical examination including drug testing for all personnel directly involved.
5. Contact military or FAA approved Flight Surgeon at: _____, if mishap involves a physiological incident and injury to personal or damage to aircraft occurs. Flight Surgeon examination is required in this case.
6. Coordinate with the <Local DCMC> Aviation Safety Officer on all reporting and investigations in accordance with <_____> Procedures and contract requirements.
7. Complete Telephonic Mishap Notification Format (Attachment 2) and submit to GFR.
8. Coordinate with <Local DCMC> Maintenance Manager to ensure records are impounded/secured.
9. Ensure preservation of perishable evidence on-site: fuel, oil, hydraulic fluid, LOX, gaseous oxygen, etc., until local military unit interim board arrives. Use Mishap Response Kit (see attachment 5 for contents).

Continued on next page. . .

10. Ensure appropriate perishable photographic evidence is recorded (e.g. body positions of victims, ground scars, terrain scars).
11. Act as an advisor to the Investigation Board and assist its members as needed.
12. Direct all questions from Press to <_____>/<Local DCMC> public affairs office.
13. In the event an employee is injured or killed as a result of accident, ensure <_____> Personnel Office contacts next-of-kin.

TAB 10

AVIATION SAFETY OFFICER

Local DCMC Aviation Safety Officer (ASO) (Phone# _____) WILL:

1. Insure that crash rescue operations are taking place.
2. Insure availability of, and dispatch to assembly point, qualified personnel to assist crash investigation crew at accident site.
3. Insure all personnel (ground & flight) involved in the mishap are immediately scheduled for medical examination including drug testing for all personnel directly involved.
4. Contact military or FAA approved Flight Surgeon at: _____, if mishap involves a physiological incident and injury to personal or damage to aircraft occurs. Flight Surgeon examination is required in this case.
5. Coordinate with the <_____> Aviation Safety Officer to ensure reporting and investigation will occur in accordance with <_____> Procedures and contract requirements.
6. Complete Telephonic Mishap Notification Format (Attachment 2).

FAX Number

Phone Number

FAX TO ACO: _____

District CFO: _____

PCO: _____

Safety Office
servicing PCO: _____

7. Call each office; ensure they received FAX and have no further questions.
8. Ensure AQOI is notified (703-767-3430/18/23/28/17) if unable to contact District CFO.

Continued on next page. . .

9. Ensure preservation of perishable evidence on-site: fuel, oil, hydraulic fluid, LOX, gaseous oxygen, etc., until local military unit interim board arrives. Use Mishap Response Kit (see attachment 5 for contents).
10. Ensure appropriate perishable photographic evidence is recorded (e.g. body positions of victims, ground scars, terrain scars).
11. Complete Maintenance Managers responsibilities if necessary.
12. Act as an advisor to the Investigation Board and assist its members as necessary.
13. Direct all questions from Press to <_____>/local DCMC public affairs office.
14. In the event a military member is injured or killed as a result of accident, contract the Casualty Reporting Section at:

_____ After duty hours use: _____

TAB 11

GOVERNMENT FLIGHT REPRESENTATIVE

INSTRUCTIONS:

THE GOVERNMENT FLIGHT REPRESENTATIVE

(Phone# _____) WILL:

1. Insure that crash rescue operations are taking place.
2. Coordinate with the <_____> Aviation Safety Officer to ensure reporting and investigation will occur in accordance with <_____> Procedures and contract requirements.
3. If not accomplished by ASO complete Telephonic Mishap Notification Format (Attachment 2)

FAX Number

Phone Number

FAX TO ACO: _____

District CFO: _____

PCO: _____

Safety Office
servicing PCO: _____

4. Call each office; ensure they received FAX and have no further questions.
5. Ensure AQOI is notified (703-767-3418/3423/3428/3417) if unable to contact District CFO.
6. Ensure all other checklists are completed.
7. Act as an advisor to the Investigation Board and assist its members as necessary.
8. Direct all questions from Press to <_____>/local DCMC public affairs office.
9. In the event a military member is injured or killed as a result of accident, contract the Casualty Reporting Section at:

_____ After duty hours use: _____

BLANK

TAB 12

AVIATION MAINTENANCE MANAGER (GOVERNMENT)

PROCEDURES:

THE AVIATION MAINTENANCE MANAGER (AMM) or QAR,

(Phone# _____) WILL:

1. Notify <_____> Quality (Phone# _____), to secure deliver necessary records to the DLA office including:
 - a. Aircraft maintenance records.
 - b. Records (training/qualification/currency/medical) for all crewmembers and noncrewmembers involved in mishap.
 - c. AGE equipment maintenance records (if a factor in Ground Mishaps).
 - d. Records (training/qualification/currency/medical) for ground personnel involved in mishap.
 - e. Preflight paperwork.
 - f. Tower, ARTCC, & RAPCON tapes and logs.
 - g. Weather forecasted to crew.
 - h. NOTAMS crew used prior to flight.
 - i. Life support equipment.
2. Ensure oil (hydraulic/engine), LOX, and fuel samples are taken from ground support equipment servicing mishap aircraft.
3. Assist FSO in obtaining witness statements, photos, and samples of the mishap aircraft POL weather observation have been initiated or taken.
4. Assist Mishap/Accident Investigation Board.
5. Direct all questions from Press to <_____>/local DCMC public affairs office.

BLANK

TAB 13

LOCAL DCMC OFFICE OPERATIONS

PROCEDURES

LOCAL DCMC OPERATIONS WILL:

1. If informed of a crash, activate the primary crash alarm system and notify all parties in the primary system.
2. Notify the local DCMC office chain-of-command and the ACO.
3. Make OPREP-3 telephonic notification if applicable (see Attachment 6 for OPREP-3 report format). NOTE: An aircraft mishap at this facility may qualify for an OPREP-3 report. OPREP-3s are used to transmit time critical information to the National Command Authorities. An OPREP-3 Report is required in all cases where an event or incident is of National or DoD interest. OPREP-3s are not a contractual requirement. In the event a potentially reportable incident occurs the Aviation Safety Officer (ASO) and/or Government Flight Representative (GFR) will notify the Local DCMC/DISTRICT OPREP-3 Monitor:

_____ at (phone#)_____.

4. Control, direct, coordinate and dispatch DoD personnel, aircraft, equipment, and convoys to locate or to service crash scene.
5. Serve as the initial control center for Government post-accident activities.
6. Complete GFR, ASO, and Maintenance Manager duties, as applicable, for those individuals not available.
7. In the event a military member is injured or killed as a result of accident, contract the Casualty Reporting Section at:

_____ After duty hours use:_____

BLANK

AIRCRAFT EMERGENCY ASSISTANCE LIST

OFFICE	TELEPHONE
Director of _____	_____
<_____> Radio	_____
<_____> Security	_____
<_____> Medical Section	_____
Ambulance	_____
Government Flight Representative	_____
Government Safety	_____
Local DCMC Commander	_____
Federal Aviation Administration	_____
Coast Guard	_____
Army Guard	_____
State Police	_____
Local Police	_____
Tower	_____
Security Patrol (Vehicle)	_____
Fire Department	_____
Emergency	_____
Fire Department	_____
Hospital	_____
Ambulance	_____

BLANK

MISHAP TELEPHONIC NOTIFICATION FORMAT

WARNING: DO NOT DELAY NOTIFICATIONS ATTEMPTING TO FILL ALL BLANKS

A. TYPE OF MISHAP: (FLIGHT, FLIGHT RELATED, AIRCRAFT GROUND, GROUND)(CIRCLE APPROPRIATE)

B. DATE:_____LOCAL TIME:_____

CONDITION (DAY, NIGHT, DAWN OR DUSK)_____

LOCATION:_____

C. OWNING SERVICE & COMMAND:_____

D. CONTRACT NUMBER:_____

CONTRACTOR NAME:_____

ADDRESS:_____

E. ITEM DAMAGED (PART #/ACFT MISSION/DESIGN/SERIES/BUNO #):_____

F. NARRATIVE OF MISHAP:_____

G. INJURIES/FATALITIES/PERSONNEL INVOLVED (GOVERNMENT/CONTRACTOR):

H. DAMAGE ESTIMATE (DO NOT BE CONSERVATIVE)(CIRCLE APPROPRIATE):

GOVERNMENT: (\$0 - < \$10,000), (\$10,000 - < \$200,000), (\$200,000 - < \$1 MIL), (> \$1 MIL)

CONTRACTOR: (\$0 - < \$10,000), (\$10,000 - < \$200,000), (\$200,000 - < \$1 MIL), (> \$1 MIL)

OTHER: (\$0 - < \$10,000), (\$10,000 - < \$200,000), (\$200,000 - < \$1 MIL), (> \$1 MIL)

I. EFFECT ON

PRODUCTION:_____

J. FOR FLIGHT MISHAPS- ALTITUDE & WEATHER AT TIME OF OCCURRENCE:

PERSON SUBMITTING NOTIFICATION (NAME/TITLE/ORGANIZATION)

TELEPHONE NUMBER:_____

OTHER NOTIFICATIONS

NAME & OFFICE SYMBOL	PHONE	DATE/TIME
ACO _____	_____	_____
PCO _____	_____	_____
SAFETY OFFICE SERVICING PCO _____	_____	_____
AQOI _____	_____	_____
DISTRICT FLT OPS _____	_____	_____

INVESTIGATION POLICY

1. This Pre-Mishap Plan contains instructions for both <_____> and Government personnel. Once initiated, the procedures for investigating the mishap will be carried to their conclusion unless directed otherwise by higher authority.
2. By contact, <_____> personnel are required to respond to and investigate all mishaps. In the event the National Transportation Safety Board (NTSB) or owning Service conducts a MISHAP or ACCIDENT investigation <_____> personnel may be requested to assist in the investigation in order that the Investigation Board may benefit from the technical expertise of <_____> pilots and engineers and the investigative experience of the Systems Safety Branch. These personnel may not, however, serve on the Investigation Board in any official capacity.
3. DoD investigations of applicable DoD mishaps are generally the responsibility of the Military Services. However, the Military Services may request DCMC investigate and report certain explosives mishaps. These situations will be handled on a case-by-case basis. Whenever a request for a DCMC investigation is received from the Services, it will be coordinated through the DISTRICT Chief of Flight Operations and forwarded to the DCMC Flight Operations and Specialized Safety Division (AQOI) (703-767-3418/3423/3428/3417). The Investigating Officer will be assigned by the Assistant Executive Director, Operations/ Policy Group (AQO).
4. JAG Manual Investigation. The Manual of the Judge Advocate General states in Section 0902: "In every instance in which an aircraft mishap results in death or serious injury; extensive damage to Government property; or in which there is the possibility of a claim either by or against the Government...; a JAG Manual investigation shall be performed. These are called ACCIDENT INVESTIGATIONS. Care must be taken that the JAG Manual investigation in no way compromises the concept of privileged information gained during an Aircraft MISHAP INVESTIGATION since those statements taken in a JAG Manual Investigation may be used in litigation. No member of an Aircraft Mishap Board may serve on a JAG Manual Investigation involving the same mishap.
5. Interagency Investigation. In any mishap involving both civil and DoD aircraft, the National Transportation Safety Board (NTSB) will have primary investigation responsibility and authority. DoD personnel may or may not participate in this investigation which is completely separate from the Aircraft Mishap or Accident Investigations.
6. Any additional investigation and reporting of the mishap will be in accordance with the contract requirements, the Procedures Manual, and Military Service and Defense Logistics Agency Regulations.

BLANK

ASSOCIATED DIRECTIVES

	Army ARNG USAR	Navy, USNR, Marine Corp USMCR	Air Force ANG AFI	Coast Guard
Aircraft Accidents	AR 385-40 AR 95-5	OPNAV INST 3750.6	AFI 91-204 AFI 48-101 AFM 93-1 AFI 91-206 AFI 51-503 AFPAM 91-211 AFI 36-3002	Chapter 2B of COMDTINST M5100.29
Missing Aircraft	AR 385-40 AR 95-5	OPNAV INST 3750.6	AFI 91-204 AFI 13-202	Chapter 2B of COMDINST M5100.29
Investigating Boards	AR 385-40 JAG AR 15-6 Manual AR 95-5	OPNAV INST 3750.6	AFI 36-2910 AFI 35-102 AFI 91-204	CG Supplement to the Manual for Courts-Martial CG-241
Accident Claims	AR 27-20	JAG Manual	AFI 51-501 AFI 91-204 AFI 51-503	COMDINST 5890.4 series
News Releases	AR 340-16 AR 360-5 AR 340-17 AR 360-80	NAVSO P-1035	AFI 35-102 AFI 31-401 AFI 35-206 AFI 91-204 AFI 51-503	CG-247
Flying Violations	AR 95-12	OPNAV INST 3760.1	AFI 13-203 AFI 91-204 AFI 51-503	CG-333
Air Traffic Control & Flight Rules	AR 95-1 AR 95-9 AR 95-37 NGR 95 TM 1/2557-26 29	OPNAV INST 3710.7	AFI 13-203 AFI 11-206	CG-333

BLANK

INITIAL MISHAP RESPONSE KIT CONTENTS

The Initial Mishap Response Kit is used to gather perishable evidence prior to the arrival of the interim investigation board. The kit can be found in the <_____>'s Aviation Safety Officer's office.

It contains the following*:

- | | |
|---|---|
| 1. Fluid sample jars with lids and stick-on labels for recording the location where the sample was taken. | 12. Waterproof flashlights (large sealed halogen and or fluorescent). |
| 2. Waterproof pens and magic markers. | 13. Extra batteries for camera, tape recorder, and flashlights. |
| 3. Index cards. | 14. Work and latex gloves. |
| 4. Plastic ziplock bags with stick-on labels. | 15. Plastic drop cloth sheets for protecting evidence from inclement weather. |
| 5. 35mm camera with several rolls of B&W and color film. | 16. Copy of Pre-Mishap plan. |
| 6. Short ruler or tape measure to give scale when photographing small objects. | 17. <_____> flightline access windshield signs. |
| 7. 100' tape measure. | 18. Adhesive tape (transparent & masking). |
| 8. Local area grid maps. | 19. Disposable dust masks. |
| 9. Writing pads. | 20. Bug Spray. |
| 10. Portable tape recorder with extra tapes. | 21. Protective eye glasses. |
| 11. Compass. | 22. Hard hats. |

*Recommended

BLANK

TEXT OF OPREP-3 TELEPHONE CALL

***** DUE WITHIN FIVE (5) MINUTES FROM NOTIFICATION *****

***** DO NOT DELAY CALL AWAITING ADDITIONAL INFO *****

1. This is the _____ (OFFICE)

located at: _____
(CITY) (STATE)

with an OPREP-3 PINNACLE report.

DATE-TIME-GROUP _____
(Month/Year) (Day of Month) (Zulu Time)

2. Give a short narrative of what is known about what happened.

Also include:

A. If any assistance is required.

B. Aircrew injury status ***** DO NOT INCLUDE NAME(S) *****

C. If press interest may be likely. _____

D. Whether or not amplifying information will follow via the
OPREP-3 reporting system. _____

Continued on next page. . .

***** IF A TELEPHONE CALL WAS MADE, *****
 ***** A FOLLOW-UP MESSAGE IS MANDATORY *****
 ***** WITHIN TWENTY (20) MINUTES *****

Flagword/Precedence	Mishap generates	Examples
NAVY BLUE/"Immediate"	High Level DoD Interest	1. Aircraft crash on civilian property 2. Midair collision w/ civilian a/c 3. Labor unrest
PINNACLE/"Flash"	High National Level Interest	4. Sabotage 5. Major fire, explosion

Call: NATIONAL MILITARY COMMAND CENTER (NMCC)

DSN: 227-6340/6341/6342/6343
 725-3530 secondary

Comm'l: (703) 697-6340/6341/6342/6343

FORMS & FORMATS



REQUEST FOR FLIGHT APPROVAL			NUMBER (FOR DLA USE ONLY)	
TO: (DLA Activity Approving Flight)			FROM: (Name and Address of Contractor)	
1. PRIME CONTRACT NUMBER UNDER WHICH AIRCRAFT ASSIGNED			2. BAILMENT NUMBER UNDER WHICH AIRCRAFT ASSIGNED (when applicable)	
3. FLIGHT CREW			4. NON-CREW PERSONNEL	
POSITION	NAME OF PERSON	POSITION	NAME OF PERSON	
5. AIRCRAFT MISSION, DESIGN, SERIES			6. DATE(S) OF FLIGHT(S)	
7. AIRCRAFT SERIAL NUMBER(S)				
8. PURPOSE OF FLIGHT (Statement concerning flight objectives)				
9. I CERTIFY that this flight is in accordance with the flight program authorized by the contract and will be flown conducted in accordance with the approved flight operations Procedures.			9a. SIGNATURE OF CONTRACTOR REPRESENTATIVE AND DATE	
10. GOVERNMENT FLIGHT REPRESENTATIVE ACTION <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED			10a. SIGNATURE OF GOVERNMENT FLIGHT REPRESENTATIVE AND DATE	
11. NUMBER OF FLIGHTS			12. HOURS FLOWN	
13. REMARKS (Enter brief statements as to flight results, trouble encountered during flight, and weather, or other conditions which prevented completion of flight)				
14. SIGNATURE OF CONTRACTOR REPRESENTATIVE			14a. DATE	

DLA FORM
JUN 73 644

EDITION OF MAY 67 OBSOLETE

☆ US GOVERNMENT PRINTING OFFICE: 1973-773-244/(902)3359 3-1

Fig 1.

APPENDIX C

PILOT CURRENCY AS OF: _____		<div> MEDICAL CERTIFICATE ANNUAL FLIGHT EVALUATION ANNUAL EGRESS TRAINING INSTRUMENT EXAMINATION SURVIVAL TRAINING (WATER/LAND) PHYSIOLOGICAL TRAINING ALTITUDE CHAMBER 45 DAY LANDING CURRENCY INSTRUMENT APPROACHES THIS SEMI-ANNUAL PERIOD SORTIES/HOURS THIS SEMI-ANNUAL PERIOD </div>											
(NAME)	DATE ACCOMP- LISHED DD/MM/YY												
AIRCRAFT TYPE	EXPRIA- TION DATE DD/MM/YY												
(NAME)	DATE ACCOMP- LISHED DD/MM/YY												
AIRCRAFT TYPE	EXPRIA- TION DATE DD/MM/YY												
(NAME)	DATE ACCOMP- LISHED DD/MM/YY												
AIRCRAFT TYPE	EXPRIA- TION DATE DD/MM/YY												
(NAME)	DATE ACCOMP- LISHED DD/MM/YY												
AIRCRAFT TYPE	EXPRIA- TION DATE DD/MM/YY												
(NAME)	DATE ACCOMP- LISHED DD/MM/YY												
AIRCRAFT TYPE	EXPRIA- TION DATE DD/MM/YY												

Fig 2.

OTHER CREWMEMBER & NONCREWMEMBER CURRENCY AS OF: _____		<div> <div>MEDICAL CERTIFICATE</div> <div>ANNUAL FLIGHT EVALUATION</div> <div>ANNUAL EGRESS TRAINING</div> <div>80 DAY SORTIE REQUIREMENT*</div> <div>SURVIVAL TRAINING (WATER/LAND)</div> <div>PHYSIOLOGICAL TRAINING</div> <div>ALTITUDE CHAMBER</div> <div>SORTIES/HOURS THIS SEMESTER*</div> </div>											
(NAME)	DATE ACCOMPLISHED DD/MM/YY												
AIRCRAFT TYPE	EXPIRATION DATE DD/MM/YY												
(NAME)	DATE ACCOMPLISHED DD/MM/YY												
AIRCRAFT TYPE	EXPIRATION DATE DD/MM/YY												
(NAME)	DATE ACCOMPLISHED DD/MM/YY												
AIRCRAFT TYPE	EXPIRATION DATE DD/MM/YY												
(NAME)	DATE ACCOMPLISHED DD/MM/YY												
AIRCRAFT TYPE	EXPIRATION DATE DD/MM/YY												
(NAME)	DATE ACCOMPLISHED DD/MM/YY												
AIRCRAFT TYPE	EXPIRATION DATE DD/MM/YY												

* THESE ITEMS DO NOT APPLY TO NONCREWMEMBERS

Fig 3.

EXAMPLE PRE-SCHEDULE UPDATE
(DD FORM 644)

<_____>'s update for 28 July 1996

item 1: F12345-94-C-2001
item 3: Brad Jones (pilot), Betty Jones (co-pilot)
item 4: none
item 5: T-1A
item 6: 28 July 1996
item 7: 940023
item 8: ACF mission to primary airwork area. Planned 1.5hrs.

item 1: F12345-94-C-2001
item 3: Betty Jones (pilot), Brad Jones (co-pilot)
item 4: none
item 5: T-1A
item 6: 28 July 1996
item 7: 940024
item 8: initial FCF in Columbus MOA. Planned 2.1hrs.

EXAMPLE POST MISSION RECAP
(DD FORM 644)

<_____>'s update for 28 July 1996

item 1: F12345-94-C-2001
item 3: Brad Jones (pilot), Betty Jones (co-pilot)
item 4: none
item 5: T-1A
item 6: 28 July 1996
item 7: 940023
item 8: ACF mission to primary airwork area. Planned 1.5hrs.
item 11: 1
item 12: 2.3
item 13: ACF completed

item 1: F12345-94-C-2001
item 3: Betty Jones (pilot), Brad Jones (co-pilot)
item 4: none
item 5: T-1A
item 6: 28 July 1994
item 7: 940024
item 8: initial FCF in Columbus MOA. Planned 1 hrs.
item 11: 0
item 12: 0.0
item 13: Mission canceled. Severe weather in FCF area.

CONTRACTOR MINIMUM CRASH/FIRE/RESCUE EQUIPMENT CHECKLIST (MAJOR AIRFIELD RESCUE FIREFIGHTING VEHICLES)(as tailored from AFMCI 91-101 2 May 1994 and NFPA 414)

1. The aircraft shall be able to operate both on and off pavement to ensure effective response to aircraft accident sites off paved surfaces. This capability as a minimum shall include:

- _____a. Multi-axle drive, at least one front and one rear
- _____b. Flotation tires that are larger and wider than required for load carrying alone will be used to ensure flotation under soft ground conditions.
- _____c. Ground clearance of a minimum of 13 inches from the lowest point of suspension and 18 inches from underbody.

2. The vehicle must be able to achieve the following minimum response criteria:

- _____a. One minute to agent discharge at any incident on the runway or overruns after repositioning for an announced emergency.
- _____b. Three minutes to agent discharge at any incident on the runways, taxiways, overruns, or parking aprons for an unannounced emergency.
- _____c. The vehicle must be capable of agent delivery with controlled vehicle operation at speeds of at least 5 mph.

3. Each required vehicle must be able to carry and deliver firefighting agent as follows:

- _____a. No less than 1000 gal or 4000 L of water contained in a tank(s) that is a permanent part of the vehicle.
- _____b. A separate tank of foam/liquid concentrate will be installed as a permanent part of the vehicle and shall have a working capacity sufficient for a resupply at rated water capacity.
- _____c. The vehicle shall have a minimum of one turret/nozzle. The turret(s) shall be able to discharge agent at a rated capacity in not more than 2 minutes. The turret(s) shall be either manually operated or power controlled. If manually operated, the firefighter assigned does count toward the minimum required tank crew.
- _____d. Turret(s) shall be capable of being elevated 45 degrees above horizontal and depressed so as to discharge agent within 30 feet (9m) in front of the vehicle at full output using a dispersed stream. Turret(s) shall be capable of rotation not less than 105 degrees to each side.

CONTRACTOR MINIMUM CRASH/FIRE/RESCUE EQUIPMENT CHECKLIST (MAJOR AIRFIELD RESCUE FIREFIGHTING VEHICLES)(as tailored from AFMCI 91-101 2 May 1994 and NFPA 414)

_____e. Primary turret must be able to discharge agent at least ~~far~~ as the fuselage length plus 30 ft of the largest aircraft serviced under the contract.

_____f. The vehicle shall have a system (bumper turret, ground sweep nozzle, spray bar, or other device) capable of discharging at least 100 gpm to protect the vehicle from involvement in the fire.

_____g. The vehicle shall have at least one primary handline at least 100 feet in length. The handline shall have a minimum delivery of 60 gpm (240 L/min) through a shutoff type nozzle. The nozzle(s) shall be a combination type with the capability of changing from a dispersed stream of 15 ft width and 20 ft range, to a straight stream with a 50 ft range. The hose shall be capable of withstanding the manufacturer's rated test pressure and be tested to this specification annually.

4. The vehicle shall have the following controls and crew operating provisions:

_____a. The vehicle driver's position shall be located such that all necessary controls shall be within easy reach for the full and simultaneous operation of the vehicle and pumping/discharge systems.

_____b. Each vehicle shall be equipped with two-way radio capability of communicating with the airfield and fire/rescue controlling agencies.

_____c. A spotlight controllable from the driver's position.

5. Other Fire Protection Requirements:

_____a. A minimum of two crash/fire/rescue vehicles.

_____b. A driver/operator plus 2 fire fighters for each truck.

_____c. Fire fighter protective clothing that is specifically ~~and~~ qualified for aircraft fire fighting and rescue operations.

_____d. Truck equipment and tools specific to the contract aircraft necessary to effect rescue.

COMMENTS:

PREMISSION BRIEFING GUIDE

_____ Call Sign	_____
_____ Test Aircraft/Test Number/ Flight Number/Test Site	_____
_____ Test Objective	_____
_____ Aircraft Crew	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____ GFR Signed Flight Approval Form	
_____ Configuration	
_____ Changes since last test	
_____ Maintenance performed	
_____ Test Configuration Number	_____
_____ Takeoff Gross Weight	_____
_____ Target Test Weight	_____
_____ TakeoffCG/Target CG	_____
_____ Aircraft Loading	_____
_____ Takeoff Fuel Onboard	_____
_____ Instrumentation Status	
_____ Go/No Go Criteria Status	
_____ Previous Test Squawk Review	
_____ Test Procedures	
_____ Detail Review of Test Card	
_____ Flight Limitation/Restrictions/Security	

Fig 6a.

_____	Emergency/Abort/Recovery/Lost Comm. Procedures	
_____	Support Requirements	
_____	Telemetry	
_____	TM Personnel	
_____	Chase Requirements	
_____	Type	
_____	Crew/Observers	_____
_____	Call Sign	_____
_____	Requirements/Rendezvous	
_____	Other	
_____	Video Requirements (if applicable)	
_____	Pace Vehicle	
_____	SAR (as applicable)	
_____	Ground Support (i.e., fueling)	
_____	Takeoff Time	_____
_____	APU Start	_____
_____	Communications	
_____	Primary	_____
_____	Secondary	_____
_____	Emergency	_____
_____	Test Area (location, altitude, etc.)	
_____	Range Limitations (as applicable)	
_____	Window	_____
_____	Adjustment Options	
_____	Clearance Procedures	
_____	Weather	
_____	Alternate Test Objectives	
_____	Miscellaneous/Aircraft Status	
_____	Special Life Support Systems and Equipment (as applicable)	
_____	Flight Crew Coordination (including Ground Personnel and Non Crew Members, as applicable.	
_____	Aircraft Commander	

Fig 6b.

POST MISSION BRIEFING GUIDE

_____ Times, Flight	_____
_____ Airframe	_____
_____ Engines	_____
_____ Flight Card Review (Pilots)	
_____ Test Point Quality	
_____ Chase Crew Observations	
_____ TM Comments	
_____ Discrepancies/Assignment of Responsibility	
_____ Test	
_____ Aircraft	
_____ Instrumentation	
_____ Support Facilities	
_____ Plans for Next Flight	
_____ Purpose	_____
_____ Configuration	_____
_____ Changes Required	_____
_____ Data Review Required	_____
_____ Schedule for Preflight Brief	_____
_____ Instrumentation	_____
_____ Mandatory discrepancies to be corrected prior to next flight	

Aircraft Commander	

Fig 7.

CONTRACTOR CREWMEMBER RECORD							<i>Form Approved OMB No. 0704-88</i>		
<u>Privacy Act Statement</u>									
AUTHORITY:		10 USC 8012.44 USC 3101, and EO 9397, November 1943 (SSN)							
PURPOSE AND USE:		To record individual contractor flight crew personnel records and approval to operate Government aircraft. Serves as a record of approval of private contractor personnel who will operate Government Aircraft.							
DISCLOSURE:		Voluntary; however, failure to complete will prevent approval of contractor flight crew members from operating Government aircraft.							
NAME OF CREWMEMBER (First, last, middle initial)				CONTRACTOR REPRESENTED (Name and Address)					
IDENTIFY CREW POSITION <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"><input type="checkbox"/> TEST</div> <div style="text-align: center;"><input type="checkbox"/> SUPPORT</div> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"><input type="checkbox"/> FUNCTIONAL</div> <div style="text-align: center;"><input type="checkbox"/> OTHER (Specify)</div> </div>									
MISSION, DESIGN AND SERIES AIRCRAFT OR OTHER REQUIREMENT FOR THIS QUALIFICATION				BASE OR LOCATION WHERE QUALIFICATION ACCOMPLISHED					
<input type="checkbox"/> INITIAL QUALIFICATION <input type="checkbox"/> REQUALIFICATION									
SECTION I FLIGHT EXPERIENCE (Time to nearest hour)									
FLYING TIME ABOVE TYPE JET _____ HRS. TURBO PROP _____ HRS. RECIPROCATING _____ HRS. ROTARY _____ HRS.								TOTAL FLYING TIME	
MISSION DESIGN AND SERIES AIRCRAFT	PERIOD OF TIME	IP	1ST PILOT				COPILOT	AIRCRAFT COMMANDER	OTHER CREW MEMBER (Specify)
			TOTAL	WX	HOOD	NIGHT			
	LAST 12 MOS								
	LAST 4 YRS								
	TOTAL								
	LAST 12 MOS								
	LAST 4 YRS								
	TOTAL								
	LAST 12 MOS								
	LAST 4 YRS								
	TOTAL								
	LAST 12 MOS								
	LAST 4 YRS								
	TOTAL								
	LAST 12 MOS								
	LAST 4 YRS								
	TOTAL								
	LAST 12 MOS								
	LAST 4 YRS								
	TOTAL								
	LAST 12 MOS								
	LAST 4 YRS								
	TOTAL								

SECTION II - FLIGHT CHECK <i>(Instructor fill in remarks where applicable)</i>				
1. PREFLIGHT INSPECTION AND FORMS		7. IN-FLIGHT EMERGENCY PROCEDURES		
2. EMERGENCY ESCAPE PROCEDURES		8. PRELANDING CHECK, TRAFFIC PATTERN AND LANDINGS		
3. PRESTART COCKPIT PROCEDURES AND ENGINE START		9. POSTFLIGHT INSPECTION		
4. COMMUNICATIONS AND TAXI PROCEDURES		10. ACCOMPLISHMENT OF FORMS AND AIRCRAFT SECURITY		
5. PRETAKEOFF COCKPIT CHECK AND ENGINE RUNUP		11. INSTRUMENT PROFICIENCY CHECK		
6. TAKEOFF AND FLIGHT PROCEDURES		12. OTHER <i>(Specify)</i>		
SECTION III - ADDITIONAL REQUIREMENTS <i>(fill in where applicable)</i>				
	CHECKED BY	GRADE	DATE AND PLACE	HOURS
13. PHYSICAL EXAMINATION				
14. PHYSIOLOGICAL/ALTITUDE INDOCTRINATION				
15. PRESSURE SUIT TRAINING				
16. PERFORMANCE DATA				
17. GROUND SCHOOL <i>(By Subject)</i>				
AIRCRAFT GENERAL				
AIRCRAFT PREFLIGHT				
ENGINE SYSTEM				
OXYGEN SYSTEM				
AIR CONDITIONING				
PRESURIZATION				
FUEL SYSTEM				
INSTRUMENT SYSTEM				
ELECTRICAL SYSTEM				
HYDRAULIC POWER SYSTEM				
UTILITY SYSTEM				
FLIGHT CONTROL SYSTEM				
AUTO PILOT SYSTEM				
ROTARY SYSTEM				
18. COMMUNICATIONS & NAVIGATION				
19. AIRCRAFT EMERGENCY PROCEDURES				
20. OTHER REQUIREMENTS AS STATED IN APPROVED CONTRACTOR OPERATING PROCEDURES				
21. Have you ever had an aircraft accident <i>(as defined by FAR or military procedures)</i> or physiological reaction <i>(e.g. hypoxia, decompression sickness, hyperventilation, spatial disorientation)</i> as a pilot, or other crew member? _____ If yes, explain.				
22. Have you ever been charged with a flying violation? If so, state the circumstances.				
23. Remarks <i>(For additional space use blank sheet.)</i>				

CERTIFICATION OF QUALIFICATION			
This is to certify that _____ <small>(Name and Crew Position)</small> has satisfactorily completed the training or special qualification indicated hereon:			
YEAR	TRAINING OR SPECIAL QUALIFICATIONS	DATE COMPLETED	CERTIFYING OFFICIAL
	GROUND PHASE		
	WRITTEN EXAMINATION		
	EMERGENCY PROCEDURES		
	CONTRACTOR FLIGHT OPERATIONS PROCEDURES		
	EGRESS TRAINING		
	PHYSIOLOGICAL TRAINING		
	OTHER <i>(Specify)</i> ¹		
	FLIGHT PHASE		
	PROFICIENCY		
	INSTRUMENT		
	OTHER <i>(Specify)</i> ¹		
	GROUND PHASE		
	WRITTEN EXAMINATION		
	EMERGENCY PROCEDURES		
	CONTRACTOR FLIGHT OPERATIONS PROCEDURES		
	EGRESS TRAINING		
	PHYSIOLOGICAL TRAINING		
	OTHER <i>(Specify)</i> ¹		
	FLIGHT PHASE		
	PROFICIENCY		
	INSTRUMENT		
	OTHER <i>(Specify)</i> ¹		
¹ Formation, Refueling, Night or special maneuver requirements.			
SECTION IV - CERTIFICATIONS			
I certify that I have read and understand all pertinent technical orders, handbooks, contractor's operating <i>Procedures</i> , and pilot's operating instructions pertaining to the above aircraft.			
DATE	SIGNATURE OF		
The above crewmember has/has not demonstrated proficiency in, and has/has not a satisfactory knowledge of _____ mission/design/series aircraft and has/has not satisfactorily completed the flight requirements for the type of flight check indicated above, and is/is not fully qualified in this type aircraft.			
This checkout consisted of _____ hours dual, _____ hours solo, _____ landings from right <i>(or rear)</i> seat, and _____ landings from left <i>(or front)</i> seat.			
DATE	BASE OR HOME STATION OF INSTRUCTOR	TYPED OR PRINTED NAME OF INSTRUCTOR	
		SIGNATURE OF INSTRUCTOR	

FORMAT FOR REQUEST FOR APPROVAL FOR QUALIFICATION TRAINING

SUBJECT: Request for Government Approval for Aircrew
Qualification and Training

TO: Government Flight Representative (GFR)

I. Name _____ Crew Position _____
Aircraft _____ Date of Birth _____
Security Clearance _____ FAA Rating _____

II. Provide a resume of education background. (High school, name and location; college or university name, location and degree obtained; flight school and date completed; test pilot school and date completed; and special professional schools.)

III. Have you ever served in any branch of the U.S. Military Services? _____. If so, state:

Branch _____
Service Dates: From _____ To _____
Last Location _____
Highest Rank _____ SSAN _____ Aero Rating _____
Are you now a member of the Reserves or National Guard? _____
If yes, Branch _____ Present Rank _____

IV. Provide a resume of experience in the flight test field. Include both engineering and aircrew experience by project, type of aircraft, and hours flown.

FLIGHT PHASE

V. I certify that I have read and understand all of the contractor's Procedures and directives pertinent to the accomplishment of my assigned duty.

(Signature of Flight Crewmember)

VI. I have verified the records of _____ and it is requested that he/she be approved for qualification training as a _____ (Crew Position) for experimental engineering/acceptance/production/functional/support flights (delete those not applicable) in _____ type aircraft.

(Typed name of Contractor's
Requesting Official)

(Signature of Contractor's
Requesting Official)

VII. _____APPROVED _____DISAPPROVED _____
(Date of approval or Disapproval)

(Typed Name of GFR)

(Signature of GFR)

1 ATTCH
DD Form 1821

PRIVACY ACT STATEMENT

AUTHORITY: 10 U.S.C. 8013, 44 U.S.C. 3101, and DLAM 8210.1, Volumes 1 and 2/AFR 55-22V1/AR 95-20/NAVAIRINST 3710.1C.

PRINCIPAL PURPOSE: Used to monitor and manage individual contractor flight and ground personnel records.

ROUTINE USES: Records from this system may be disclosed for any of the blanket routine uses published by the Air Force.

DISCLOSURE IS VOLUNTARY: However, failure to provide the information could result in disapproval to participate in the program.

PRIVACY ACT SYSTEM OF RECORDS NOTICE F060 AF B applies.

FORMAT FOR REQUEST FOR APPROVAL OF CONTRACTOR FLIGHT
CREWMEMBER

SUBJECT: Request for Approval of Contractor Flight Crewmember

TO: Government Flight Representative (GFR)

I. I have verified the records of _____ and it is requested that
he/she be approved as a _____

(Crew Position) for experimental Engineering/acceptance/
production/functional/ support flights (as appropriate) in _____ type aircraft.

(Signature of Contractor's
Requesting Official)

1 ATTCH
DD Form 1821

(Typed name of Contractor's
Requesting Official)

II. I certify that _____ has satisfactorily flown a proficiency flight
check on _____(Date).

(Signature of IP/FE)

III. _____ APPROVED

(Signature of GFR)

_____ DISAPPROVED

(Typed Name of GFR)

(Date)

PRIVACY ACT STATEMENT

AUTHORITY: 10 U.S.C. 8013, 44 U.S.C. 3101, and DLAM 8210.1, Volumes 1 and 2/AFR 55-22V1/AR 95-20/NAVAIRINST 3710.1C.

PRINCIPAL PURPOSE: Used to monitor and manage individual contractor flight and ground personnel records.

ROUTINE USES: Records from this system may be disclosed for any of the blanket routine uses published by the Air Force.

DISCLOSURE IS VOLUNTARY: However, failure to provide the information could result in disapproval to participate in the program.

PRIVACY ACT SYSTEM OF RECORDS NOTICE F060 AF B applies.

FORMAT FOR APPROVAL OF FLIGHT NONCREWMEMBER

SUBJECT: Approval of Flight Noncrewmember

TO:

I. I certify that I have read and understand all of the Procedures and directives pertinent to the accomplishment of my assigned duty.

(Signature of Flight Noncrewmember)

I. I have verified the records of _____ and he/she is approved to perform duties as a noncrewmember for experimental engineering/acceptance/production/functional/ support flights (as appropriate) in _____ type aircraft.

DIRECTOR OF FLIGHT SAFETY

CHIEF PILOT

AIRCRAFT
TYPE

FLIGHT PERSONNEL SIGNATURE

AIRCRAFT FLIGHT SAFETY
NONCREWMEMBER
QUALIFICATION

NAME

EMPLOYEE NUMBER

HAS MET THE REQUIREMENTS TO ACT AS A NONCREWMEMBER
ONBOARD THE ANNOTATED GOVERNMENT AIRCRAFT PER DLAM
8210.1, VOL 1, AFR 55-22V1, AR 95-20, NAVAIRINST 3710.1. THIS
QUALIFICATION IS VALID WHEN SIGNED BELOW AS LONG AS
RENEWAL DATES HAVE NOT BEEN ALLOWED TO EXPIRE.

DIRECTOR OF FLIGHT SAFETY

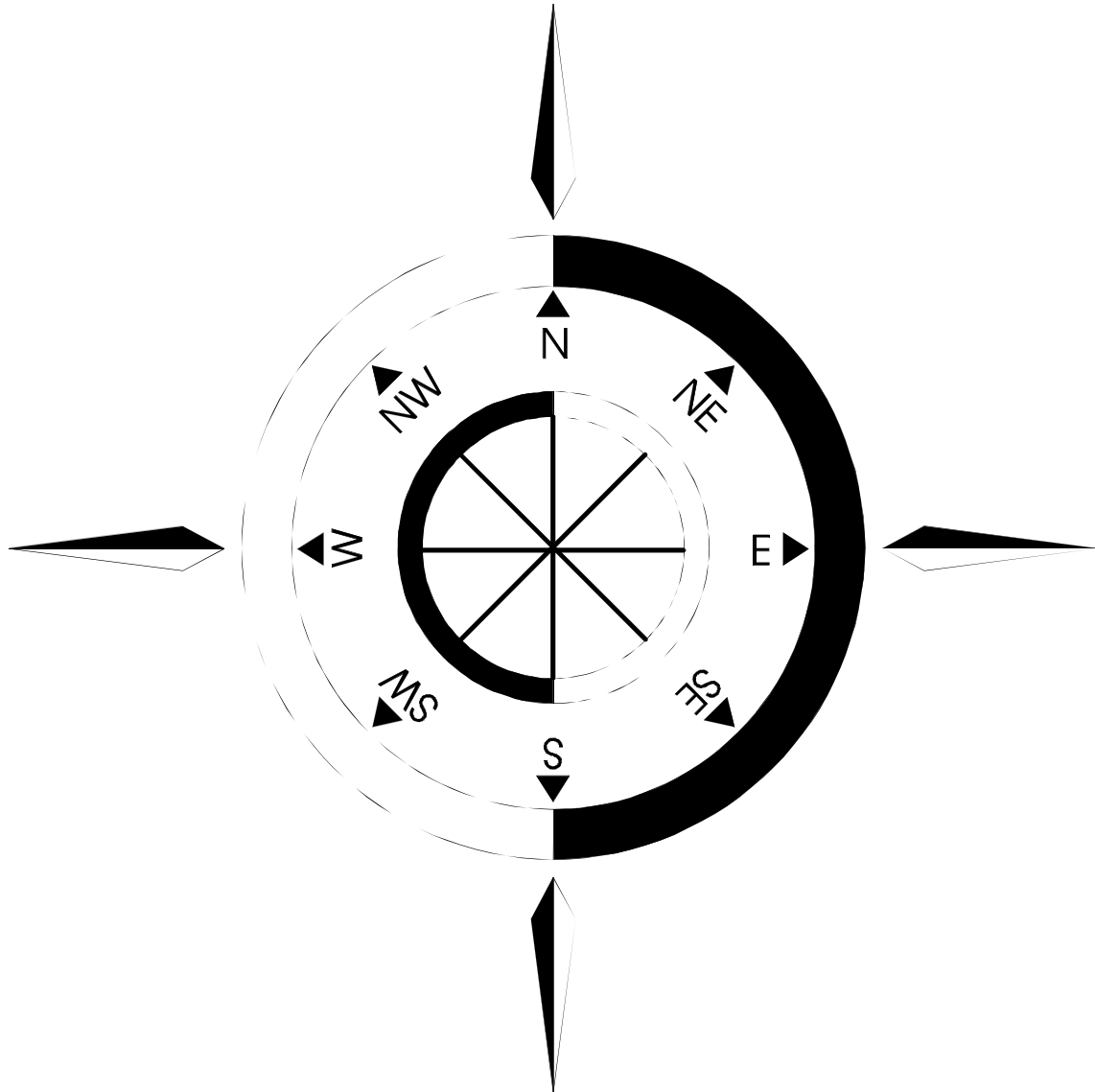
CHIEF PILOT

INITIAL QUALIFICATION							
	PHYSICAL	EJECTION SEAT	EGRESS	PHYSIO-LOGICAL	ALTITUDE CHAMBER	WATER SURVIVAL	PARA-CHUTE
PERIOD	ANNUAL	SEMI-ANNUAL	ANNUAL	ANNUAL	4 YEARS (NAVY) 3 YEARS USAF/USA	ANNUAL	ANNUAL
INITIALS							
DATE DD/MM/YY							
EXPIRES DD/MM/YY							

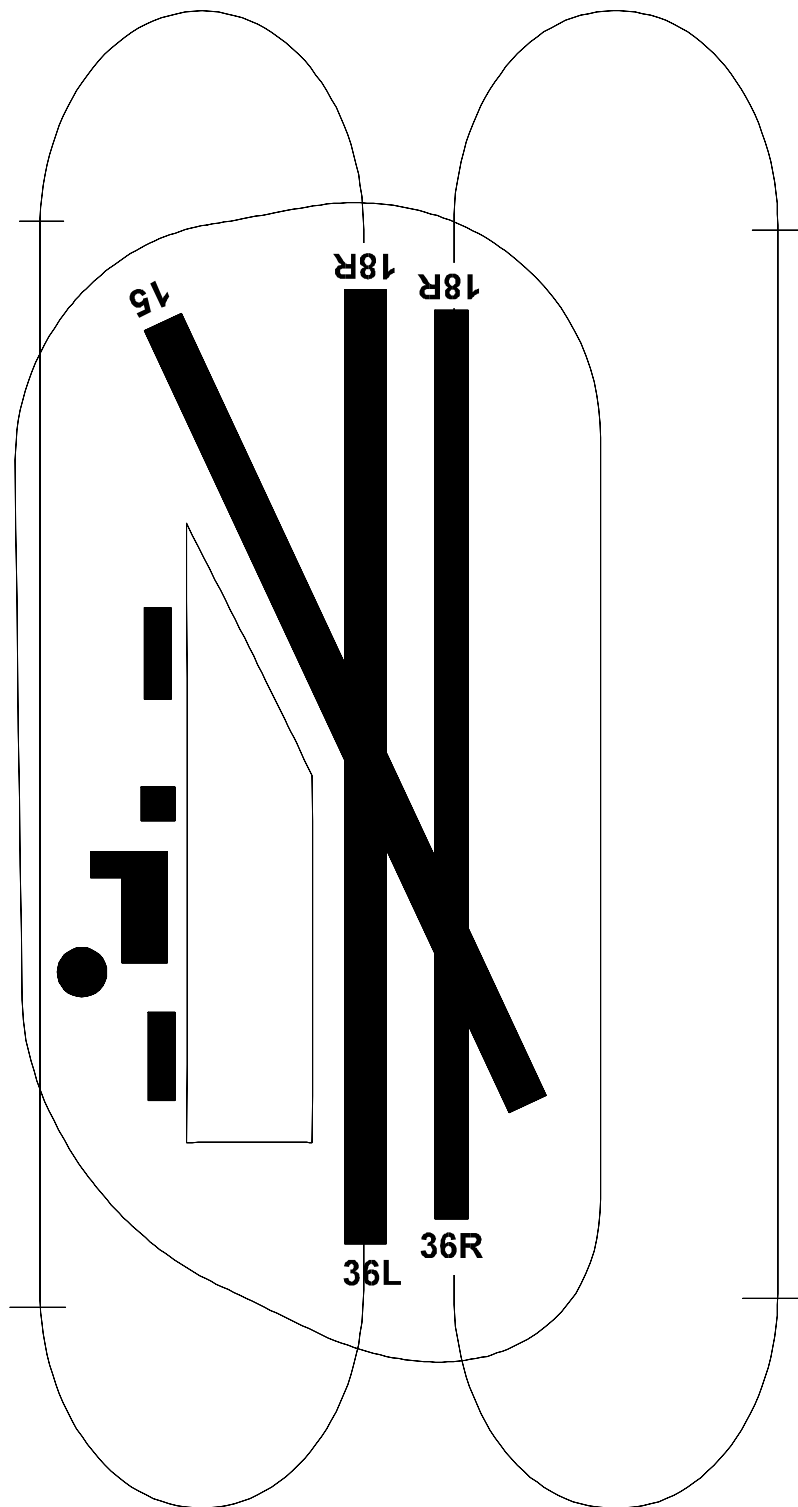
RENEWAL							
	PHYSICAL	EJECTION SEAT	EGRESS	PHYSIO-LOGICAL	ALTITUDE CHAMBER	WATER SURVIVAL	PARA-CHUTE
INITIALS							
DATE							
EXPIRES							
INITIALS							
DATE							
EXPIRES							
INITIALS							
DATE							
EXPIRES							

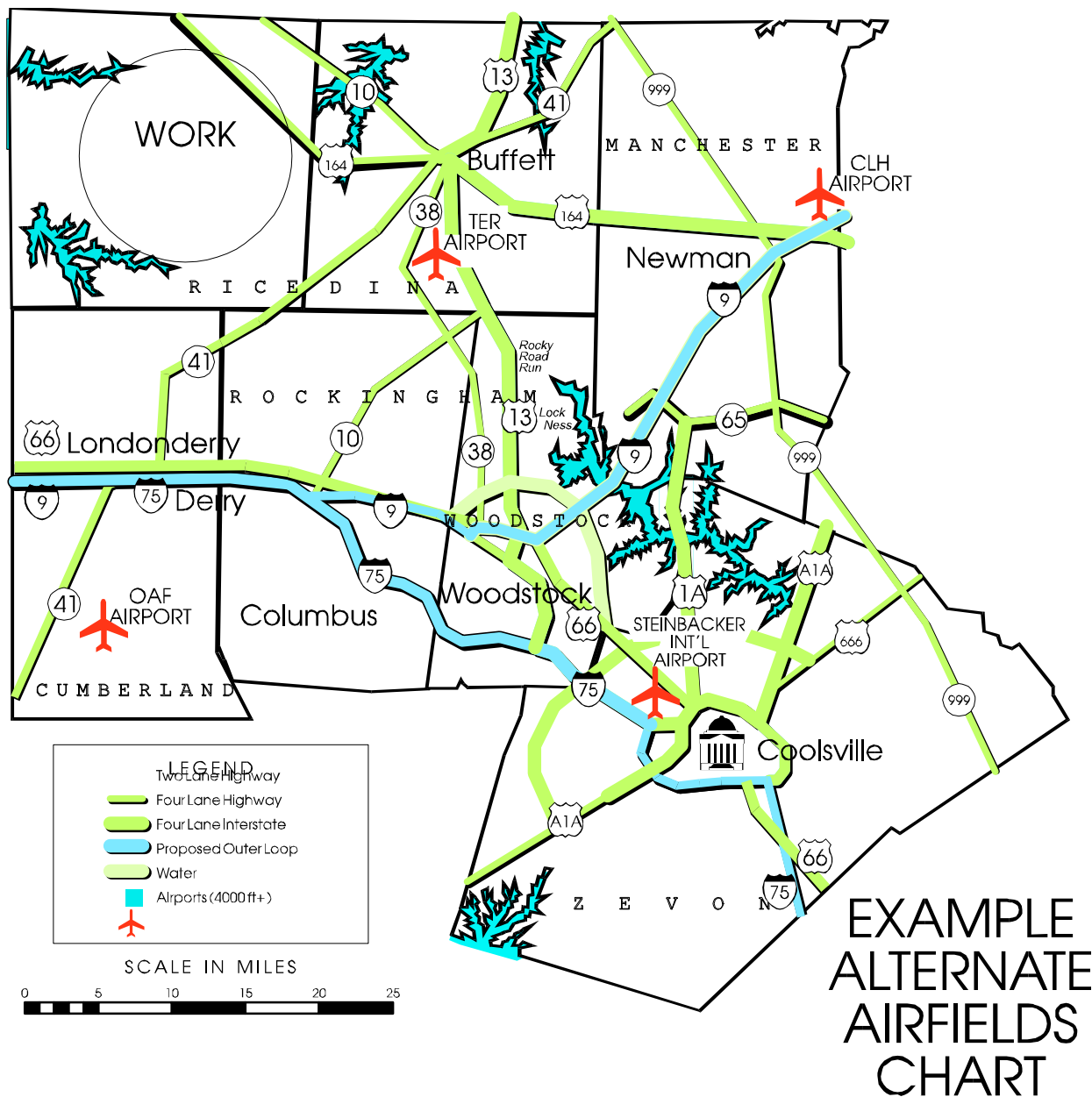
Fig 12b.

MAPS & CHARTS



PATTERN ALTITUDE 1000FT MSL



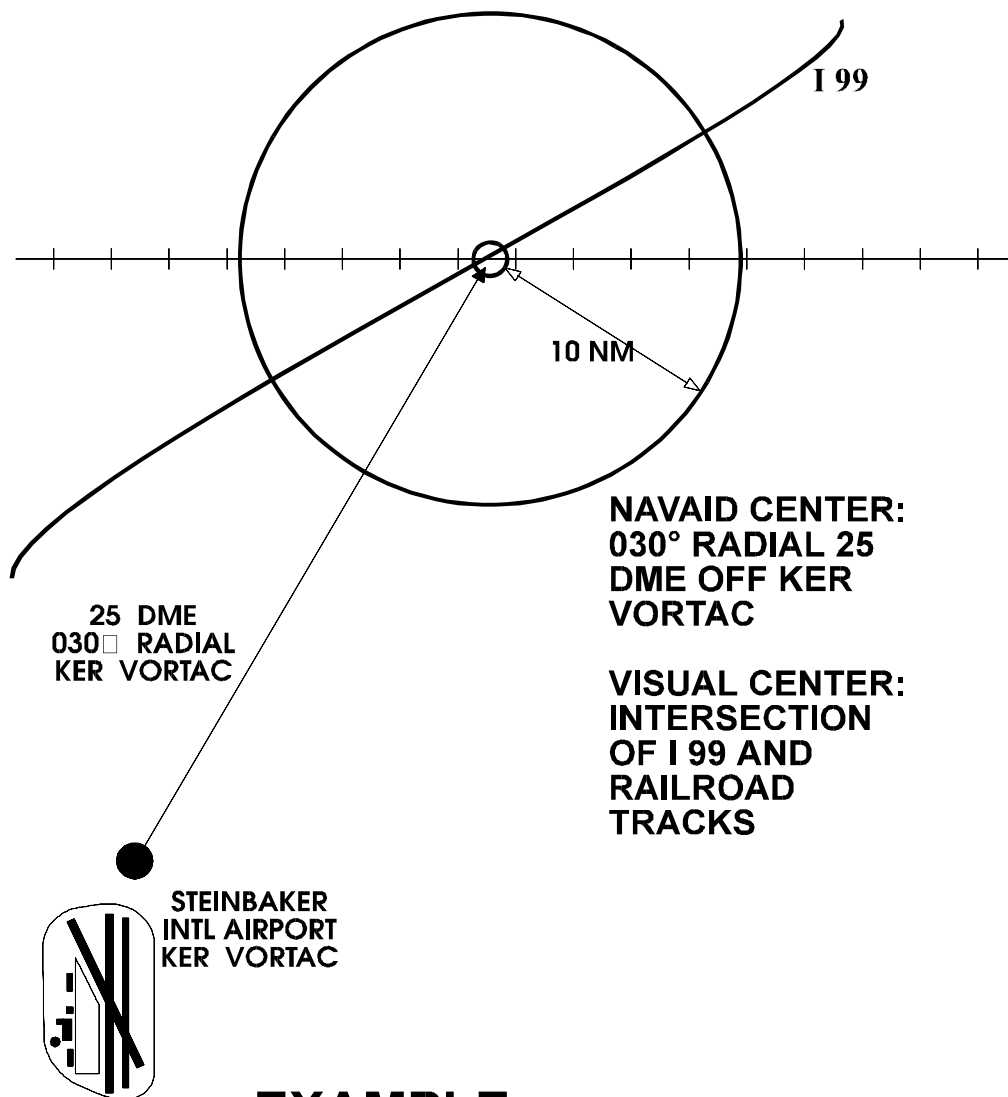


DISTANCES

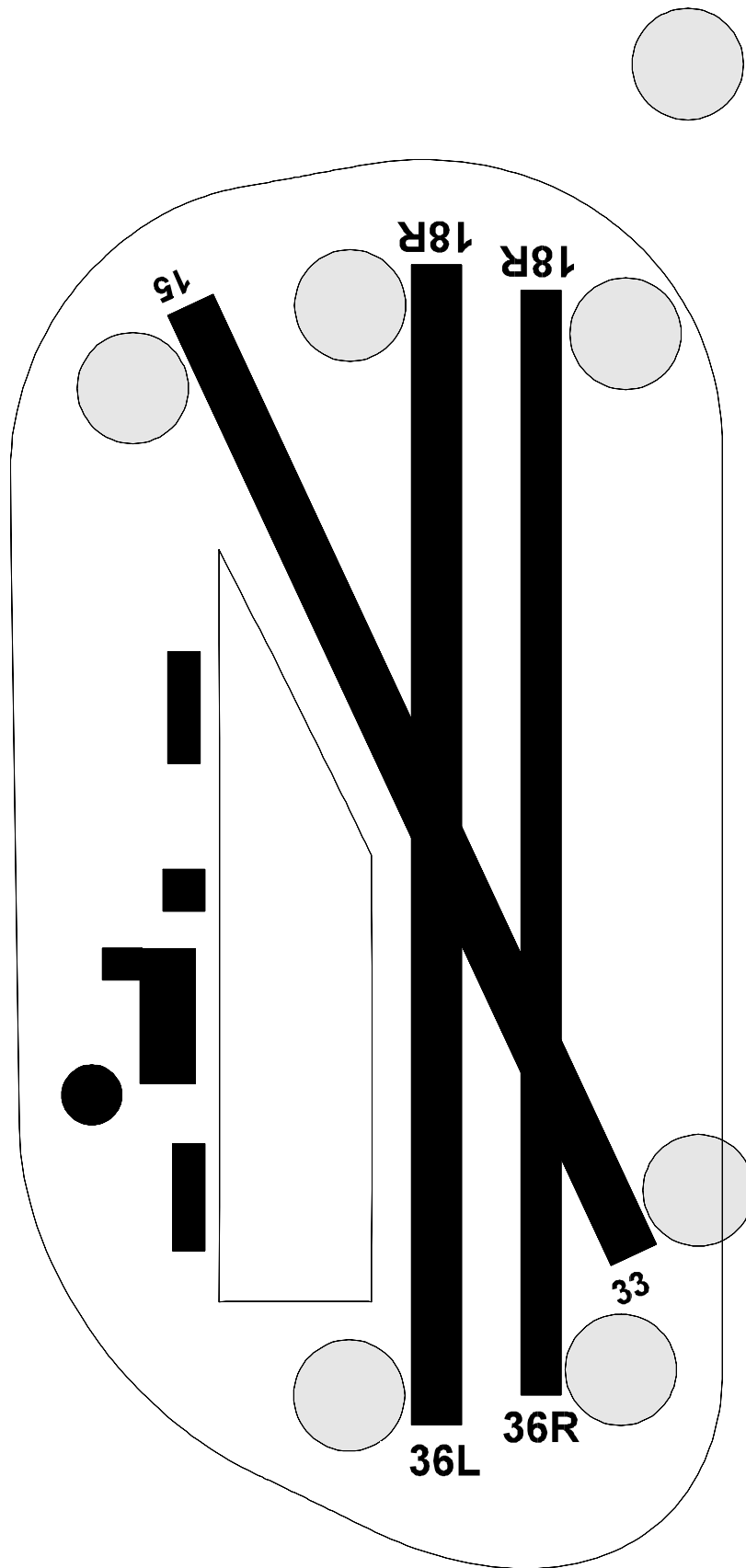
STEINBAKER - CLH	47 MILES
STEINBAKER - TER	34 MILES
STEINBAKER - OAF	46 MILES
STEINBAKER - AREA	50 MILES
AREA - CLH	45 MILES
AREA - TER	21 MILES
AREA - OAF	31 MILES

DESCRIPTION

STEINBAKER -	10,000' X 200'
TER	- 8,000' X 150'
OAF	- 6,000' X 150'
CLH	- 5,500' X 100'

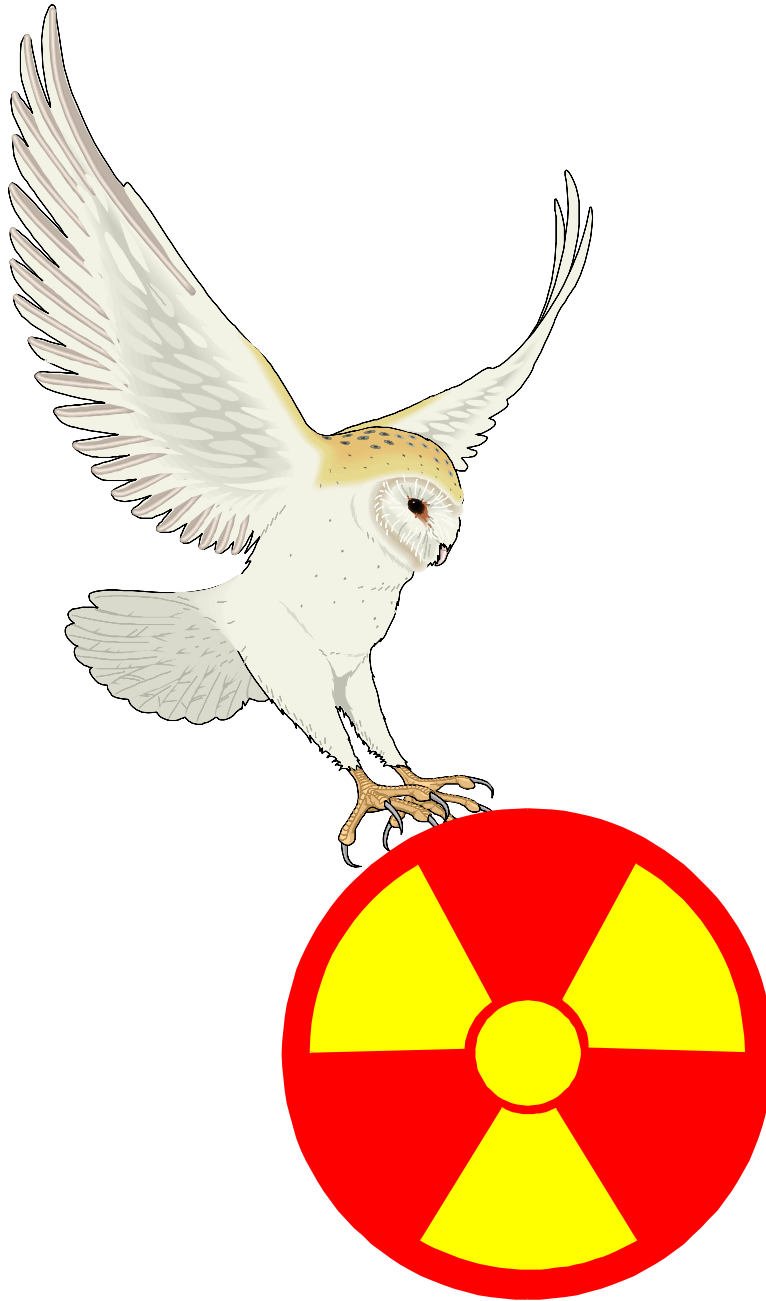


**EXAMPLE
CONTROLLED BAILOUT,
FUEL DUMP,
AND EMERGENCY
JETTISONING AREA**



BLANK

LASER OPERATIONS



Laser Operations

This instruction establishes the Procedures to be observed and the precautionary measures to be exercised to prevent damage to Government and <_____> property and injury to employees in the operation, installation, testing, and maintenance of Laser equipment. The contents of this procedure complies with Federal regulations for the control of hazards from optical radiation (State regulations may vary). This Procedure is only an example of the basic safety precautions that should be incorporated in actual Laser Operating Procedures. The basis for all working laser procedures must be the aircraft and laser equipment T.O.'s , and the contract.

Process Owner:_____.

GENERAL SAFETY:

1. Laser equipment shall be operated by authorized personnel only.
2. Lasers shall be operated only in an approved controlled area.
3. The controlled area shall be posted with warning signs (or interlocks or direct surveillance to prevent unauthorized entry).
4. Unless protective eyewear is worn, no person shall be permitted to:
 - a. View specular reflections.
 - b. Look along beam axis.
 - c. Align laser by eye.
5. Always avoid looking directly into laser beam, even when protective eyewear is worn. Also, do not view a collimated beam through optical instruments that might magnify.
6. Protective eyewear shall be worn by all persons in the controlled area.
7. Speculary reflective surfaces shall not be placed in the beam path.
8. The tracking of persons, vehicles, aircraft, or other objects shall be prohibited, unless required and authorized for a specific operation or test. <_____>'s Laser Safety Officer shall evaluate and approve/disapprove all proposed tracking operations or tests.
9. All warning labels and signs shall be affixed or positioned to preclude, during reading, human exposure to laser radiation.

10. All personnel involved in laser operations shall be provided with:

- a. Adequate instructions for proper assembly and safe use (to include warnings and precautions) of the laser system.
- b. Maximum output and pulse duration of the laser.
- c. Legible reproductions of all required labels and hazard warnings.
- d. A list of controls, adjustments, and operational procedures for normal operation or maintenance, including the warning "Caution - Use of controls or adjustments or performance of operational procedures other than those specified herein may result in exposure to hazardous radiation."

MAINTENANCE Maintenance (or servicing) personnel shall be provided with adequate instructions and procedures to safely service and adjust the laser system to include:

- 1. Warnings and precautions.
- 2. Maintenance schedule.
- 3. Description of all controls and normal operating and maintenance procedures.
- 4. Protective measures/Procedures:
 - a. Description of controls and out-of-sequence procedures which could inadvertently expose personnel to hazardous levels of radiation.
 - b. Description and location of displacement protective housings, covers, or enclosures which could allow personnel to be inadvertently exposed to hazardous levels of laser radiation.
- 5. Legible reproductions of required labels and hazard warnings.

FLIGHT LINE/IN FLIGHT:

- 1. The laser will be activated by qualified personnel only. This qualification shall consist of successful completion of instruction in the proper operation of the laser system and <_____> laser safety training.
- 2. The laser will be activated only in a controlled area which has been approved for laser operations.
- 3. Laser safety eye protection will be worn by all personnel in the control area.

4. The window covers for the laser rangefinder will be safety wired in place and sealed by a lead seal whenever it is not required for flight or whenever the aircraft is on the ground.
5. Laser rangefinder will not be activated in flight unless prior approval is received from the GFR. GFR signature on the flight approval form is sufficient for this requirement if laser operations are annotated on the form.

SAFETY RECORDS The Laser Safety Officer shall maintain a file of laser safety records. These records shall include:

1. Laser safety surveys.
2. Instrument calibrations.
3. Protective devices inspections.
4. Each transfer, receipt, and disposal of a laser.
5. Each reported accident, incident, or injury.
6. Classification of all lasers or laser installations.
7. Laser information sheets.
8. Hazard analysis for each laser/laser system.
9. Medical surveillance program.

MEDICAL SURVEILLANCE:

1. Personnel with a significant risk of exposure to hazardous levels of laser radiation shall participate in the medical surveillance program (see U.S. Army TB MED, June 1985).
2. Medical surveillance shall include:
 - a. Initial examination before initial laser use.
 - b. Follow-up ocular examinations every two years for those with significant exposure.
 - c. All others will have a periodic examination as required.
 - d. Examination immediately following an accident or suspected accidental exposure to laser radiation.
 - e. Post-employment examination.

3. Since the eyes are dilated and exposed to bright light intensity, pilots shall be placed on a non-flying status for a 24 to 48 hour period after receiving the examination.

LASER ACCIDENT/INCIDENT REPORTING:

1. A suspected or actual laser accident or incident shall be reported immediately to the Laser Safety Officer. The report shall include:

- a. Location, date and time of accident/incident.
- b. Laser manufacturer, type and model number.
- c. Names of individuals involved.
- d. Names of individuals exposed to hazardous laser radiation, and nature and magnitude of exposure/injury.
- e. Narrative description of laser accident/incident.
- f. Any other pertinent information relative to the laser accident/incident.

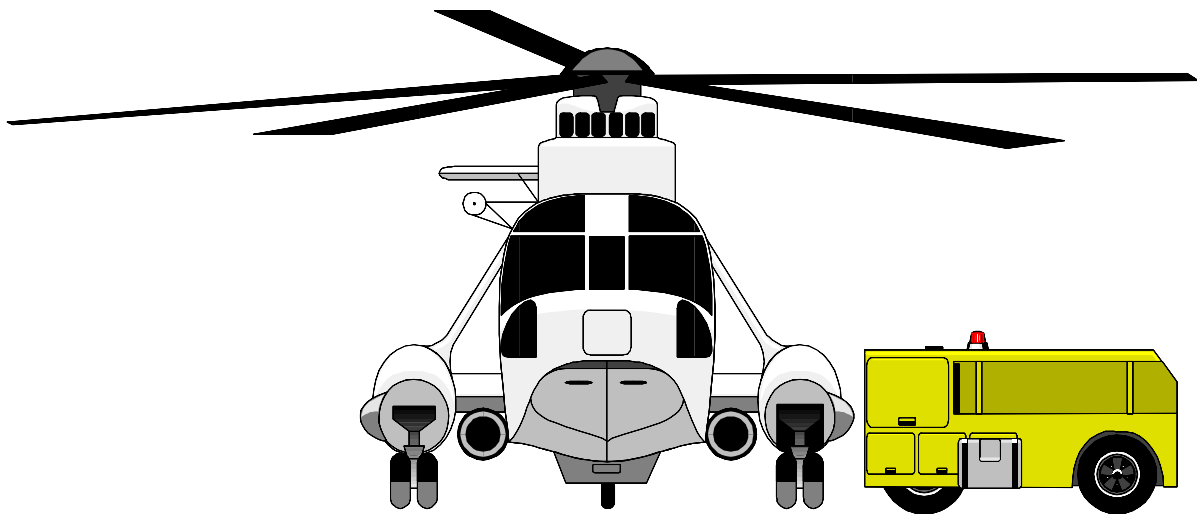
2. The Laser Safety Officer shall ensure that the GFR and state Department of Health are notified:

- a. Immediately by telephone if it is readily apparent that an individual has sustained injury.
- b. In writing within ten days of discovery of the accident/incident with items a-f above and actions taken to eliminate, correct, or control the causes of the accident/incident.

ADDITIONAL INFORMATION: See AFI 13-212 *Weapons Range Management* (Formerly AFR 50-46); and AFOSH 161-10 *Health Hazard Control for Laser Radiation* for further information on laser operations.

BLANK

PROCEDURES
FOR
POWERED AEROSPACE
GROUND SUPPORT EQUIPMENT
OPERATION



Procedures for Powered Aerospace Ground Support Equipment (AGE) Operation:

This Procedure is only an example of the basic safety precautions that should be incorporated in actual AGE Operating Procedures. Operation of AGE must be tailored to the specific AGE Technical Orders. As a minimum AGE Procedures shall follow these general guidelines:

Process Owner:_____.

1. Only personnel certified, trained and qualified on AGE operation procedures by <_____> Training Branch are authorized to operate the equipment. They shall be designated by name and qualifications. The qualifying/certification requirements and the list of authorized personnel shall be available for review by the GFR.
2. AGE certified personnel shall be thoroughly familiar with all published Procedures pertaining to the type AGE being operated and shall be required to pass, prior to certification, a written proficiency test on these Procedures and local operating standards.
3. Prior to starting AGE ensure there is a 50lb CO2 (or equivalent Halon/Purple K) fire extinguishers positioned within 50 feet of the AGE. Note Halon, a fluorocarbon will not be available in the future.
4. AGE brakes must be set or the wheels chocked at all times unless the AGE is being purposely moved.
5. Loose articles shall not be left on or around AGE.
6. AGE shall be securely and effectively grounded in accordance with the applicable Series Technical Orders at all times to reduce the potential fire hazards.
7. AGE shall be placed in such a position that ground personnel are not endangered by operating engines during AGE operation or removal.

ADDITIONAL INFORMATION: See USN NA 00-80T-96*Support Equipment Handling* NA 17-1-125,*Ground Support Equipment Corrosion Control* OPNAVINST 4790.2F,*The Naval Aviation Maintenance Program* USAF T.O. 00-20-7,*Inspection System, Documentation, & Status Reporting* T.O. 1-1A-15,*General Maintenance Instructions for Support Equipment* T.O. 35-1-3,*Corrosion Prevention, Painting, & Marking of USAF Equipment* AFI 21-101,*Maintenance Management of Aircraft* T.O. 00-25-172,*Ground Servicing of Aircraft and Static Grounding/Bonding (ATOS)* US Army TM 1-1500-328-23*Aeronautical Equipment Maintenance Management Policies and Procedures* FM 1-500,*Army Aviation Maintenance* and DA PAM 738-750,*The Army Maintenance Management System (TAMMS)* for further information on this subject.

EXPLOSIVES

SAFETY

PROCEDURES



Explosives Safety Procedures:

This Procedure is only an example of the basic safety precautions that ~~will~~ be incorporated in Explosives Safety Procedures. T.O.'s and DoD manual 4145.26M should form the basis of actual working Explosives Safety Procedures.

Process Owner:_____.

1. General Requirements:

- a. When ammunition and/or explosives are involved and removed from the aircraft, QA personnel shall ensure they are stored in <_____>'s storage facility. This facility is the only authorized location which conforms to applicable safety requirements as specified in DoD manual 4145.26M.
- b. Only personnel certified, trained and qualified in the handling, storage, receipt, shipping, removal, disassembly, inspection, repair, and adjustment of explosives and/or explosive components thereof by <_____> Training Branch are authorized to handle explosives. Training Branch will maintain records of all certification, training and qualification done on the above operations.
- c. Written procedures for A&E handling must be in-place and available for all personnel with access.

2. Specific Requirements:

- a. Aircraft will be made safe prior to input into the facility. Qualified and trained personnel shall inspect for and remove all explosives/ammunition that may be identified in T.O. 11A-1-46/DoD Consolidated Ammunition Catalog in accordance with applicable aircraft -2 Series Technical Orders. Exception: Explosive components that are an integral part of the aircrew escape system need not be removed from the aircraft, unless the system is required to be disturbed by other maintenance actions or is required by work specifications or Technical Order. If the air crew escape system is to remain installed in the aircraft, personnel will ensure that all safety procedures and devices applicable to the ejection system are employed and that all safety pins/devices are properly installed.
- b. Munitions/Explosives items removed from the aircraft must be stored in accordance with DoD manual 4145.26M. Small quantities of operational munitions items may be stored in facilities such as hangers and operating buildings without regard to quantity distance. See the footnotes associated with the quantity distance tables, chapter 6 of DoD manual 4145.26M.
- c. Each electrically initiated explosive item removed from an aircraft shall be placed in original container or in a metal container prior to transportation/storage. The item must be cushioned

against movement in the container and, if the item was manufactured with a shunting device, the shunt will be installed on the item upon removal from the aircraft.

d. Each explosive item that is not electrically initiated shall be placed in original container or wooden box prior to transportation/storage. The items shall be cushioned against movement in the container.

e. Each explosive item/container shall be marked to indicate the location on the aircraft and the aircraft tail number to which it belongs. Specific munitions items must be reinstalled in the same location on the same aircraft from which it was removed.

f. Unserviceable munitions items shall not be stored with serviceable items. Serviceable reserve stock of munitions items will not be stored with serviceable aircraft munitions items nor with unserviceable stocks.

g. Prior to reinstallation of explosive items on the aircraft, the item lot number shall be checked against T.O. 11A-1-1 and supplements there to, for any restrictions/suspensions. Explosives items will be checked/inspected against their specific technical order for serviceability to include expiration of shelf/service life. If any explosive item is identified as restricted/suspended or having an expired shelf/service life, contact the ACO for turn in/replacement instructions. Update aircraft records to reflect shelf/service life and lot number of installed replacement munitions items.

h. <_____> personnel will be certified and qualified on aircraft cockpit operations, aircraft canopy/seat ejection system, parachute/survival equipment and gun system.

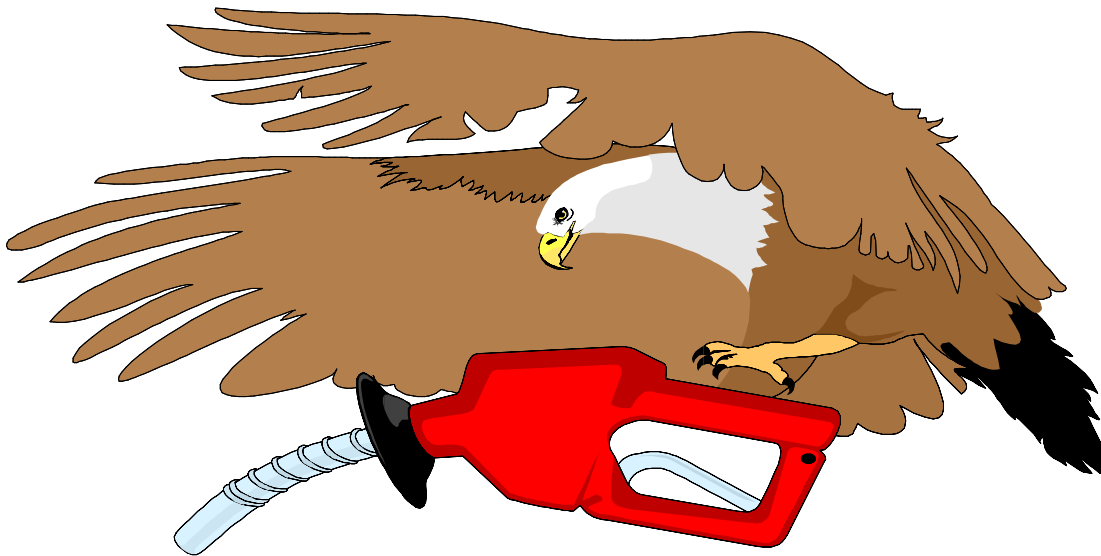
i. <_____> personnel will be familiar with Technical Orders applicable for each explosive item and aircraft armament system.

j. If shipment of explosives is to be made by military air or to an Aerial Port of Embarkation (APOE) the contractor shall comply with the requirements for shipping certificate set forth in the applicable Service directives.

ADDITIONAL INFORMATION: See USN NA 11-100.1.3*Cartridges and CADs*; NA 11-100.1.1, *General Use Cartridge Activated Devices (CADs)*; AFMAN 91-201, *Explosives Safety Standards*, for further information on this subject.

BLANK

REFUELING AND DEFUELING PROCEDURES



Refueling and Defueling Procedures:

GENERAL: The following procedures are generally accepted practices for fueling/defueling. The applicable T.O. for each aircraft must form the basis for all actual contractor fueling/defueling Procedures. Only approved personnel shall supervise the fueling and defueling operations.

Process Owner:_____.

1. These operations will be conducted under supervision.
2. No fuel/defuel operations or any other operation where flammable liquids or vapors may be present or created shall be accomplished within 100 feet of aircraft surface detection radar equipment, antennas, and or within 300 feet of aircraft warning radar antennas that are operating.
3. All possible sources of ignition shall be prohibited within a 50-foot radius of fuel/defuel and fuel system repair operations. Fire or spark production items shall not be carried during these operations.
4. Fuel/defuel operations shall be prohibited when electrical storms or thunderstorms are within a 5 mile radius of the operation or when winds reach hazardous velocities (35 mph).
5. No aircraft within 100 feet of these operations shall be serviced.
6. "NO SMOKING - REFUELING AND DEFUELING" signs are to be displayed around a 50 foot diameter area around the aircraft being refueled or defueled.
7. Smoking and open flames are not allowed within 50 feet of aircraft.
8. Ground power unit will be placed up wind and with the electrical cord fully extended.
9. Fuel trucks shall be kept as far away as possible from aircraft.
10. Aircraft and servicing equipment shall be adequately grounded and bonded to reduce the static electricity hazards generated by these operations.
11. Two (2) 50 lb. CO2 fire extinguishers (or equivalent Halon/ Purple K, etc.) shall be placed in strategic locations near the aircraft prior to beginning fuel/defuel operations. One shall be located in the immediate location of the aircraft and one shall be positioned at the ground power unit. Position fire trucks at aircraft for all fueling/defueling operations if CO2 extinguishers are unavailable.
12. Refueling area is to be cleared of unwanted equipment, fire hazardous material, and unauthorized people.

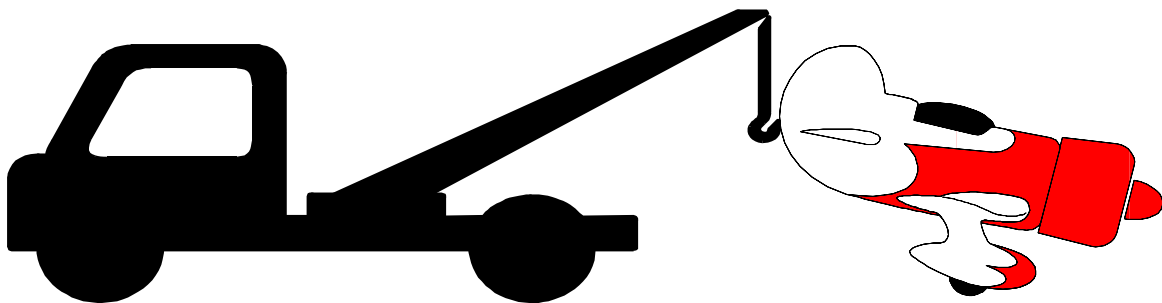
13. No maintenance will be performed on the aircraft and only the required electrical power will be applied to the aircraft.
14. Fuel contamination and specifications shall be verified prior to fueling operations.
15. Fuel hoses and couplings shall be inspected and only those in serviceable condition shall be used. Maintenance and inspection records for hoses and couplings shall be kept current. Under no circumstances shall personnel lock or block fuel hose nozzles in an open position. They shall be manually operated at all times. Fuel hose nozzles and connectors shall be equipped with a suitable bonding cable and grounding jack plug. Nozzles and fuel tank neck area shall be cleaned prior to refueling or defueling. Ensure tank vents are unobstructed.
16. Refueling pressures shall not exceed the limitations.
17. Defueling vacuum shall not exceed the limitations.
18. In the event of a fuel spill, leakage, or overflow, stop the operation and immediately find out the cause, and rectify the situation. Operations cannot continue until spilled fuel is cleaned up.
19. Do not conduct refueling or defueling operations inside hangars.

**IN THE EVENT OF A LARGE FUEL SPILL (MORE THAN 5 GALLONS) ACTIVATE THE
PRIMARY CRASH ALARM SYSTEM.**

ADDITIONAL INFORMATION: See US Army FM 10-68, *Aircraft Refueling*, FM 10-70, *Inspecting and Testing Petroleum Products*, MIL-HDBK-200G, *Quality Surveillance Handbook for Fuels, Lubricants, and Related Materials*, MIL-HDBK-844(AS), *Aircraft Refueling Handbook*, MIL-HDBK-2001B, *Petroleum Operations*, OPNAVINST 4790.2F, *The Naval Aviation Maintenance Program*, US Navy NA 06-5-502, *Aircraft Refueling for Shore Activities*, NA 00-80T-109, *Aircraft Refueling*, NATOPS Manual; NAVAIRINST 10340, *Maintaining Quality and Limiting Contamination of Aircraft Fuels*, NFPA 407, *Aircraft Fuel Servicing*, NFPA 415, *Standard on Aircraft Fueling Ramp Drainage*, AFI 21-101, *Maintenance Management of Aircraft*; and USAF T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding (ATOS)* for further information on this subject.

BLANK

TOWING
PARKING
MOORING
AND
WORK STANDS



This Procedure is only an example of the basic safety precautions that should be incorporated in towing, parking, and mooring Procedures. Aircraft towing parking and mooring should be tailored to the specific aircraft Technical Orders. As a minimum towing Procedures shall follow these general guidelines:

FLIGHT LINE SAFETY All personnel are responsible for observing and monitoring safety on the flight line. When violations of safe operating practices are suspected or observed, immediately notify the Director of _____ and GFR.

Process Owner:_____.

1. Aircraft-Towing-Parking-Mooring:

GENERAL. Aircraft ground handling personnel shall be thoroughly familiar with all published Procedures pertaining to the type aircraft being towed and shall be required to pass, at least yearly, written proficiency tests on these Procedures and local operating standards. The proficiency test must be approved by the Government Flight Representative and the testing results made available for GFR review.

2. TOWING SUPERVISOR. The supervisor of the towing team shall be in complete command of the tow team and shall take a position that shall ensure surveillance of the towing procedures and performance of other team members. Normally, this shall be the position of "nose walker". The supervisor shall be the only team member authorized to give the "all clear to move" signal.

3. TOWING CHECKLIST. The towing checklist shall be completed by the tow team supervisor. Towing team personnel shall be briefed, using the checklist, before the aircraft is moved. In the absence of a published checklist a contractor developed checklist (using the aircraft T.O.'s as a guide) will be used. The Checklist must be approved by the GFR, and cover all points and items pertaining to safe movement of the aircraft. The Pre-towing briefing shall include:

- a. The position and responsibility for each team member.
- b. The rate of speed at which the aircraft shall be towed and the route of travel.
- c. Use of authorized signals (including emergency Signals).
- d. Critical phases of aircraft movement into and out of docks, hangars, fueling areas, wash racks, and parking areas.
- e. Proper removal of all equipment, stands, power units, chocks, fire extinguishers and other materials that may be a hazard to safe movement.

f. Condition of surfaces over which the aircraft shall be moved (including known hazards such as ice, snow, rough surfaces, and narrow clearances).

g. Properly securing the aircraft after the towing operation is completed.

4. TOW VEHICLE. The tow vehicle will be inspected as to condition and to insure the proper type of tow vehicle is being used in accordance with applicable aircraft T.O.

5. TOWING VEHICLE DRIVER. The towing vehicle driver shall be responsible for operating the vehicle in a safe manner, and shall follow the instructions issued by the team supervisor. The operator shall obey Emergency Stop instructions given by any team member. Tow-vehicle drivers will make certain their equipment is serviceable and functioning properly before starting any towing operation.

6. TOWING TEAM ASSIGNMENTS/REQUIREMENTS. Specific number of individuals required on a tow team will conform with the applicable aircraft Technical Orders. Tail and wing walkers are not required when towing aircraft on unobstructed, established taxiways and runways, or parking ramps where taxi or towing lanes are marked with guide lines. In all cases there will be a towing team supervisor. When towing aircraft, team personnel will be stationed as follows:

a. Brakeman in Cockpit. A qualified person, authorized by the supervisor, will be in the pilot's seat to operate the aircraft's brakes and to observe and follow the supervisor's signals. Another qualified person will be stationed to watch and maintain hydraulic pressure if the person in the pilot's seat is unable to do so effectively. The supervisor will be warned if the pressure drops below safe operation limits.

b. Vehicle Driver. An authorized and qualified operator will be at the controls of the towing vehicle at all times during aircraft movement. On-the-job training operators will not tow aircraft unless accompanied, in an authorized seated position, by a qualified driver who is certain the student has had sufficient instruction on the type of towing vehicle being used.

c. Wing Walker. A wing walker will be stationed at each wing tip in such a position that they can ensure adequate clearance of any obstruction in the path of the aircraft. They will be responsible for properly signaling the supervisor as soon as it appears that the aircraft is in danger of colliding with an obstruction. In such cases, towing will be stopped until clearance is personally checked by the supervisor.

d. Nose Walker. A nose walker/supervisor will maintain a position in front of the towing vehicle where both wing walkers, the vehicle driver, and the person in the pilot's seat can be observed. The supervisor will be in direct contact with the person in the cockpit by interphone where such equipment is provided. When towing aircraft on unobstructed, established taxiways and runways the nose walker/supervisor may ride in the cab of the tow vehicle where the path to be traversed can be observed and the actions of the cockpit brakeman and the vehicle operator can be directed.

e. Tail Walker. A tail walker will be used during towing operations when the aircraft is to be turned sharply or backed into position. The tail walker will be responsible for properly signaling the supervisor as soon as it appears that the aircraft is in danger of colliding with an obstruction. In such cases, towing will be stopped until clearance is personally checked by the supervisor. Backing of aircraft will be avoided as much as possible.

7. STEERABLE GEAR Steerable landing gear, including out-riggers, will be set in tow position before the aircraft is moved. The locking device will be reset after the tow bar has been removed. The supervisor will ensure that personnel in the cockpit have been instructed to allow the nose gear steering wheel to turn freely and not to attempt to steer or turn the nose wheel anytime the tow bar is connected to the aircraft.

8. PERSONNEL RIDING OR WALKING Under no circumstances will personnel ride or walk between the nose wheel of an aircraft and its towing vehicle, nor will they ride on the outside of a moving aircraft or on the tow bar. No person will attempt to board or leave a moving aircraft or towing vehicle.

9. CREW NIGHT SIGNALS Two luminous wands will be issued for each towing team member. The use of wands by the towing team supervisor will not be required when aircraft interphone contact is established with the towing team supervisor, the towing tractor operator, and the brakeman in the cockpit.

10. CONTROL TOWER CLEARANCE Before towing an aircraft on or across an established taxiway or runway, the supervisor will obtain clearance from the control tower. At no time will aircraft be towed on or across runways and taxiways without advance approval of the control tower. The primary means of communication will be the aircraft radio. An alternate method (used when conditions restrict aircraft battery operation) is through a vehicle in radio contact with the control tower, who will coordinate with the tower and the towing team. The radio equipped vehicle will accompany the aircraft throughout the towing operation.

11. TOWING SPEED. Towing speed will not exceed that of walking team members, with a maximum of 5 miles per hour.

12. BRAKES. To prevent serious accidents, aircraft brake systems will be charged before each towing operation, and towing will be stopped immediately if brake pressure drops below safe operating limits. Aircraft with faulty brakes will not be towed except to a repair facility, and then only with personnel standing by, ready with chocks for emergency use.

13. TOW BARS. Before moving any aircraft, tow bars and connections will be inspected by the team chief for defects. Only authorized equipment in good condition will be used in towing operations. The front tow bar on tow tugs should be used when parking aircraft in a hangar. The tow bar will be disconnected from the towing vehicle and manually positioned during hookup to the aircraft. After the hookup to the aircraft is completed, the tow bar will be reconnected to the tow vehicle.

14. **CHOCKS.** Chocks will be available throughout towing operations, and will be properly placed before the towing vehicle is unhooked. Chocks will be fabricated IAW the applicable aircraft Technical Orders.

15. **Equipment, stands, and similar materials.** The supervisor will make certain that all equipment, work stands, loose aircraft parts, and other materials are removed from the vicinity of aircraft and are properly stored. When any equipment or materials are left outside, they will be secured to prevent accidental movement by winds or engine blasts.

16. **Entrance Doors and Down Locks.** To avoid possible personnel injury and aircraft damage during towing operations, entrance doors will be closed, ladders retracted, and down locks installed.

17. **Struts and Tires.** Prior to towing any aircraft, towing team members will check nose and main landing gear struts and tires for proper inflation.

18. **GUIDELINES.**

a. Yellow guidelines to help center aircraft being towed in or out of hangars and docks shall be painted on pavement in front of hangars and on outside dock maintenance areas.

b. Guidelines shall be painted on ramps and taxiway parking areas to aid in the safe movement of aircraft. Parking guidelines shall have a spot painted where the nose wheel of the aircraft shall be positioned when parked.

c. Guidelines shall be painted on outside wash rack pavement to aid in positioning aircraft.

19. **AIRCRAFT PARKING SPOTS.** Specific well marked parking locations shall be designated for each aircraft in work. Generally, the distance to be left between parked aircraft shall be sufficient to allow immediate access of emergency vehicles in case of fire and also to permit free movement of equipment and materials.

a. If it is necessary to temporarily park aircraft with any portion extending into an active taxiway, a safety observer shall be strategically placed to warn oncoming traffic of the hazard.

b. During hours of darkness, the safety observer shall be equipped with a red warning light, and in the daytime with a suitable flag. The observer shall remain, with the aircraft until it is moved to a safe location.

20. **MOORING.**

a. Mooring and tie down of aircraft shall be done in accordance with applicable aircraft Technical Orders. The aircraft will be secured sufficiently to ensure immobility during high winds.

b. Parked aircraft shall be securely and effectively grounded in accordance with the applicable aircraft Technical Orders at all times to reduce the potential for fire.

21. WORK STANDS.

a. To prevent damage to United States Government resources, during periods when maintenance equipment, work stands, loose aircraft parts and materials are not actually required for work in progress, they shall be removed from the parking area to suitable storage locations.

b. Equipment remaining outside of buildings shall be adequately secured against movement by winds or engine blasts.

c. Work stands and other equipment in use around aircraft shall be locked in position to ensure they will not inadvertently strike the aircraft. Work stands with inoperable wheel locks or without wheel locks shall be chocked.

d. Work stands will be inspected daily prior to use.

e. Equipment will be cleared from around aircraft prior to activation of any hydraulic component or flight control surface.

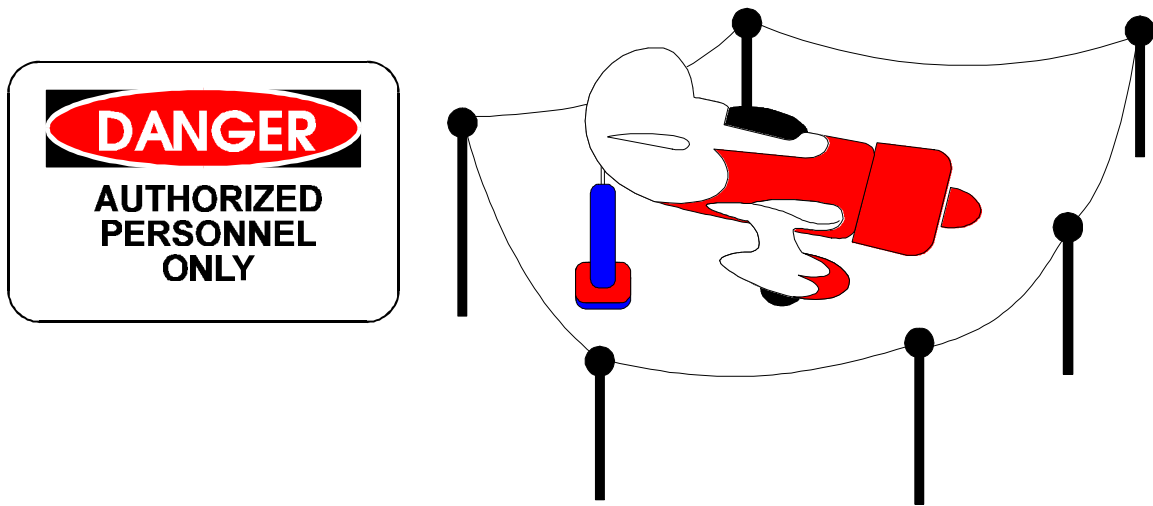
f. Large stands shall be moved by at least two ground personnel. Large stands are those stands normally requiring a tug to move more than 100 yards.

21. Private vehicles authorized to be on the flight line and aircraft parking/towing ramps shall be kept to a minimum. Vehicles shall, not be parked in taxi/tow paths.

22. Aircraft shall not be placed in any hangar or other facility while said hangar or facility is under construction or during major repair.

ADDITIONAL INFORMATION: See US Navy NA 17-1-537, *Aircraft Securing/Handling*; NA 00-80T-96, *Support Equipment Handling*; US Army TB 43-0142, *Safety Inspection and Testing of Lifting Devices*; AFI 11-218, *Aircraft Movement on the Ground*; T.O. 1-1A-15, *General Maintenance Instructions for Support Equipment*; and AFOSH STD 127-100, *Aircraft Flightline Ground Operations and Activities*, for more guidance on this subject.

AIRCRAFT JACKING



This Procedure is only an example of the basic safety precautions that should be incorporated in aircraft jacking Procedures. The applicable T.O. for each aircraft must form the basis for all actual Contractor's Procedures for aircraft jacking.

Process Owner:_____.

GENERAL. All persons involved in jacking operations shall be trained and certified by <_____> Training Division. Aircraft ground handling personnel shall be thoroughly familiar with all published procedures and T.O.'s pertaining to the type aircraft being jacked and shall be required to pass, prior to certification, a written proficiency test on these procedures and local operating standards. Only certified personnel shall conduct aircraft jacking.

Aircraft jacking operations are to be supervised at all times by a leadman. This jacking supervisor shall be thoroughly familiar with aircraft jacking procedures for the particular aircraft being jacked.

The jacking checklist shall be completed by the jacking supervisor. Jacking team personnel shall be briefed, using the checklist, before the jacking operation commences. In the absence of a published checklist a contractor developed checklist (using the aircraft T.O.'s as a guide) will be used. The Checklist must be approved by the GFR, and cover all points and items pertaining to safe jacking of the aircraft.

PROCEDURES. The following procedures should be followed during all jacking operations:

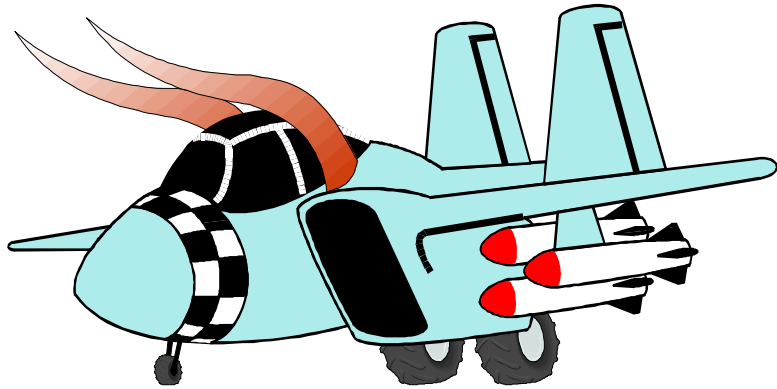
- a. Jacks shall be inspected prior to use to verify lifting capacity, proper functioning of safety locks, condition of pins, and general serviceability.
- b. Before jacking and de-jacking the aircraft, all work stands and other equipment not required for the jacking operation shall be removed from under the aircraft.
- c. The aircraft log book shall be used to obtain flue status, center of gravity limits, and aircraft weight. If normal weight and balance conditions of the basic aircraft have been disturbed by removal of heavy items, weight shall be added where required by the applicable aircraft Technical Order to reestablish the balance before jacking the aircraft.
- d. Ground surface of the jacking area should be sufficiently hard to avoid sinking the jacks when they are loaded with the aircraft weight. The surface should be level so that the weight is taken evenly by the jacks.
- e. Personnel shall not remain in or on the aircraft while being jacked or de-jacked unless required by technical order to observe leveling instruments.
- f. Only the prescribed jack pads to aircraft jacking pad fittings and the correct adapters to jack screw extensions shall be installed for jacking operations.

- g. Wheels should be chocked and brakes released.
- h. All landing gear ground locks and pins should be installed.
- i. Jacks should be raised evenly so that the aircraft holds a position approximately horizontal to the surface.
- j. Jacking shall be done reasonably slow so that there should not be any sudden change of attitude or jerking of the aircraft.
- k. Safety stands of suitable design and capacity shall be installed under the wings or tail of the aircraft (in accordance with the applicable Technical Order) after it has been raised and leveled, when the possibility of equipment failure exists, or when an unbalanced condition may occur.
- l. Unauthorized personnel shall not be permitted to pass under, climb, or walk on any portion of the aircraft when it is supported by jacks.
- m. When an aircraft is supported by jacks, the area around the aircraft shall be secured (ropes or traffic cones) and warning signs posted.
- n. Engines and other major components, such as wing panels, stabilizers, etc., shall not be removed or installed when the aircraft is supported by jacks and the landing gear is clear of the ramp or floor, except when authorized in the applicable technical order.
- o. The ram lock nut shall remain against the lift tube cylinder, either by its own weight or turned down by hand during jacking operations. Other types of jacks, if equipped with locking pins or nuts, shall be set immediately after jacking has been completed. The applicable aircraft technical order shall be consulted for specific instructions.
- p. Before attempting jacking of aircraft outside maintenance personnel shall familiarize themselves with the appropriate technical order for the aircraft involved.
 - (1) Aircraft may be supported on jacks outside of hangars when wind conditions permit.
 - (2) If specifications for wind velocity for a particular aircraft are not available, a velocity of 15 miles per hour shall be the maximum safe velocity for outside jacking operations.
- q. When jacking inside the hangar, close the doors during the operation. Keep doors closed if the internal hangar wind velocity exceeds T.O. limits or 15 miles per hour.
- r. Prior to releasing jack pressure and lowering the aircraft, maintenance personnel shall make certain the area underneath the aircraft is clear of all equipment, cribbing, and personnel, and the aircraft is ready for lowering.

- s. Prior to lowering the aircraft, the supervisor shall make certain that the landing gear is completely down, locked in position, and all ground locking devices are installed.
- t. Only personnel required to operate the jacks and to free the struts shall remain in the vicinity of the aircraft during raising/lowering operations.
- u. The aircraft shall be lowered slowly and evenly to the surface.
- v. Care shall be exercised when removing jacks from under the aircraft in order not to damage the aircraft, first by turning down the jack screw extension, and then depressing the ram into the cylinder.
- w. Inspections/ratings for aircraft jacks shall be according to aircraft Technical Order.

ADDITIONAL INFORMATION: See US Navy NA 19-600-135-6-1, *A/C Jacks: Preoperational Cards*; NA 19-600-135-6-2, *A/C Jacks: Periodic Inspection Cards*; NA 19-600-135-6-3, *A/C Jacks: Jack Tester*; OPNAVINST 4790.2F, *The Naval Aviation Maintenance Program*; DA PAM 738-750, *The Army Maintenance Management System (TAMMS)*; US Army TB 43-0142, *Safety Inspection and Testing of Lifting Devices*; TM 1-1500-328-23, *Aeronautical Equipment Maintenance Management Policies & Procedures*; FM 1-500, *Army Aviation Maintenance*; USAF TO 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*; USAF T.O. 1-1A-15, *General Maintenance Instructions for Support Equipment*; and AFOSH STD 127-100, *Aircraft Flightline Ground Operations and Activities*, for more guidance in developing jacking procedures.

MARSHALING



This Procedure is only an example of the basic safety precautions that should be incorporated in marshaling procedures. It does not include all marshaling signals, some of which are aircraft type or ICAO specific. Aircraft marshaling must be tailored to the specific aircraft types located at the facility. As a minimum marshaling procedures shall follow these general guidelines.

FLIGHT LINE SAFETY: All personnel are responsible for observing and monitoring safety on the flight line. When violations of safe operating practices are suspected or observed, immediately notify the Director of _____ and GFR.

Process Owner:_____.

1. **AIRCRAFT-MARSHALING GENERAL.** Aircraft ground handling personnel shall be thoroughly familiar with, and will adhere to all published Procedures pertaining to the type aircraft being marshaled and shall be required to pass, at least yearly, written proficiency tests on these Procedures and local operating standards. The proficiency test must be approved by the Government Flight Representative and the testing results made available for GFR review.

2. **Use of Protective Equipment:**

a. Personnel must wear protective goggles or an appropriate helmet with visor when in rotor wash areas or in front of an aircraft that is being backed using the aircraft's engines.

b. Personnel must wear ear plugs, muff-type ear defenders, or headsets in the immediate area of aircraft that have engines running. "Immediate area" is the area where hearing loss may occur if ear protectors are not worn.

c. Transient aircraft marshalers will wear a fluorescent international orange vest that covers the shoulders and extends to the waist in the front and back. Wearing of the vest is necessary to ensure flying personnel can distinguish between marshalers and other ground personnel. Individuals directly involved in fueling, defueling, and servicing liquid oxygen systems shall not wear the marshaler's vest.

3. **Pilot Signals.**

a. Pilots will initiate all signals regarding the operation of aircraft systems, for example, speed brakes, flaps, etc. The marshaler (crew chief) will repeat the given signal when it is safe to operate the aircraft system.

b. Pilots must make sure taxi speeds allow the ground marshaler or signal person to keep their proper position. When giving visual signals, the pilot's hands must be in clear view of the marshaler.

c. Standard pilot signals are (NOTE: some of these may not apply to specific aircraft):

- (1). "OK." Thumbs up.
- (2). Trim Set for Take Off. Pilot forms "T" with hands.
- (3). Safety Pin Check. Pilot must display seat pin before requesting removal of chocks. Marshalers must display ground safety pins before stowage.
- (4). Armament Switches Off, Safe, or Normal Position. This signal is used during arming and de-arming aircraft. The pilot must verify that all armament switches are turned off and then place hands in clear view of the ground crew.
- (5). Pilot Heat Check. The pilot grasps extended forefinger of left hand with right hand. The marshaler will give "OK" signal if the system is operating properly.
- (6). Clear To Lower Canopy. The pilot pats top of helmet; the marshaler pats top of head.
- (7). Flight Refueling Door Check. The pilot places hand on top of helmet with palm down and fingers forward, then raises and lowers forward portion of hand to simulate door opening and closing. The marshaler repeats the signal to indicate clear for safe opening or closing; then gives an "OK" signal if operation is proper. NOTE: Pilots may use other signals, similar to marshaler's signals in attachment 2, as necessary.

CAUTION: Do not extend arms or hands outside the cockpit on aircraft configured with clamshell-type canopies unless an uplock device has been inserted.

4. Standard Aircraft Marshaler Signals. All ground and aircrew personnel must use these signals to direct and control movement and operation of aircraft on the ground. During daylight hours, marshalers may use high visibility paddles. Self-illuminating wands are required at night.

a. PROCEED TO NEXT MARSHALER: Right or left arm down, other arm moved across the body and extended to indicate direction of next marshaler. NATO signal shows both arms extended at shoulder level pointing to next marshaler.

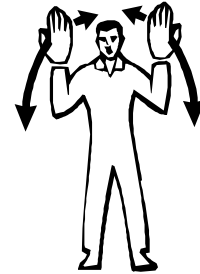
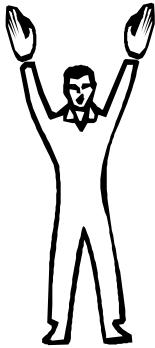


Daytime-
Hands or
Paddles



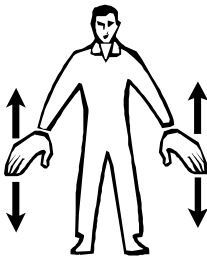
Nighttime-
Lighted
Wands

- b. **THIS MARSHALER:** Arms above head in vertical position with palms facing inward.



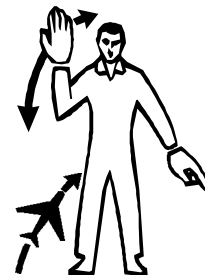
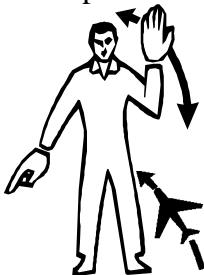
- c. **MOVE AHEAD:** Arms a little aside, palms facing backwards and repeatedly moved upward-backward from shoulder height.
-

- d. **SLOW DOWN:** Arms down with palms toward ground, then moved up and down several times.



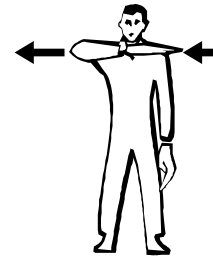
- e. **STOP:** Arms crossed above the head, palms facing forward.
-

- f. **TURN TO THE LEFT:** Point right arm downward, left arm repeatedly moved upward-backward. Speed of arm movement indicating rate of turn.



- g. **TURN TO THE RIGHT:** Point left arm downward, right arm repeatedly moved upward-backward. Speed of arm movement indicating rate of turn.
-

h. START ENGINE(S): Circular motion of right hand at head level with left arm pointing to engine. Number of fingers extended on left hand indicates engine to be started.



i. CUT ENGINE(S)/ROTOR: Either arm and hand level with shoulder, hand moving across throat, palm downward.

j. AUXILIARY POWER UNIT--CONNECTED: Hands above head, left first partially clenched, right hand moved in direction of left hand with first two fingers extended and inserted into circle made by fingers of the left hand.



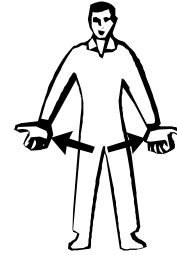
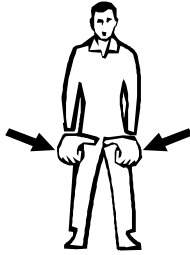
k. AUXILIARY POWER UNIT--DISCONNECTED: Hands above head, left first partially clenched, right hand moved away from left hand, withdrawing first two fingers from circle made by fingers of the left hand.

l. EXTERNAL STARTING AIR--CONNECTED: Hands above head, left hand cupped, right first fully clenched, right fist moved in direction of left hand and inserted into cup made by left hand.



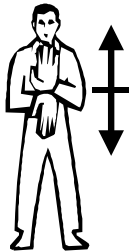
m. EXTERNAL STARTING AIR--DISCONNECTED: Hands above head, left hand cupped, right first moved away from left hand withdrawing fist from cup made by left hand.

n. CHOCKS--INSERTED: Arms down, fists closed, thumbs extended inwards, swing arms from extended position inwards



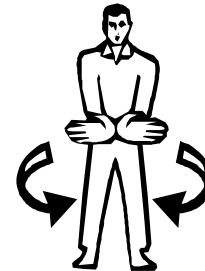
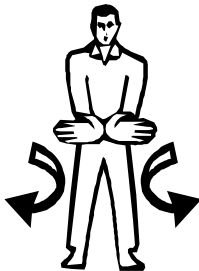
o. CHOCKS--REMOVED: Arms down, fists closed, thumbs extended outwards, swing arms outwards.

p. LOWER WING FLAPS OR FLAPS ARE EXTENDED: Hands in front, palms together horizontally then opened from the wrist.



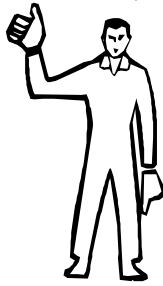
q. RAISE WING FLAPS OR FLAPS ARE UP: Hands in front, horizontally, with palms open from the wrists, then suddenly closed.

r. OPEN AIR/SPEED BRAKES OR--AIR/SPEED BRAKES ARE OPEN: Hands in front, palms together vertically, then opened from the wrists.



s. CLOSE AIR/SPEED BRAKES OR AIR/SPEED BRAKES ARE CLOSE: Hands in front, vertically with palms open from the wrists, then suddenly closed.

t. AFFIRMATIVE (ALL CLEAR OR "OK"): Hand raised, thumb up.



u. NEGATIVE (NOT CLEAR): Arm held out, hand below waist level, thumb turned down.

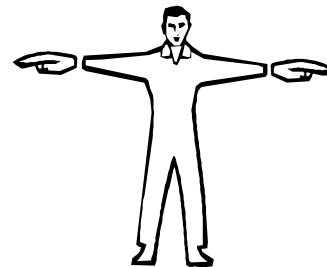
v. FIRE IN THE ENGINE OR APU: Make rapid horizontal figure-of-eight motion at waist level with either arm, pointing at source of fire with the other.



w. ABANDON AIRCRAFT: Marshaler first gives signal to cut engines, followed by signal simulating unfastening seat belt and shoulder straps and throwing them up and off.

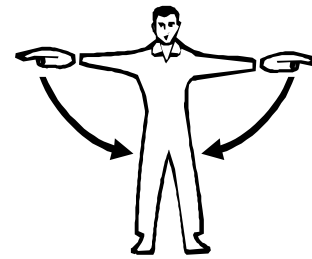
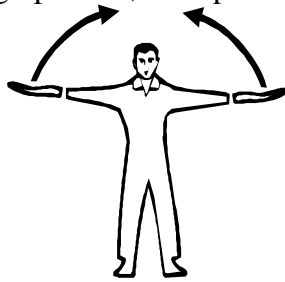
5. Standard Aircraft Marshaler Signals for Hovering Aircraft. All ground and aircrew personnel must use these signals to direct and control movement and operation of hovering aircraft. During daylight hours, marshalers may use high visibility paddles. Self-illuminating wands are required at night.

a. ENGAGE ROTOR(S): Circular motion in horizontal plane with right hand above head.



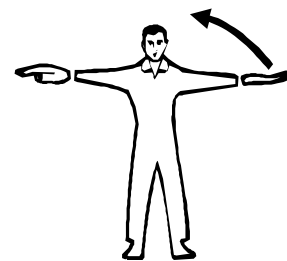
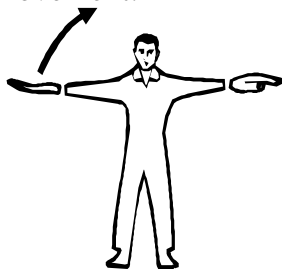
b. HOVER: Arms extended horizontally, palms downward.

c. VERTICAL MOVEMENT--MOVE UPWARD: Arms extended horizontally sideways beckoning upwards, with palms turned up. Speed of movement indicates rate of ascent.



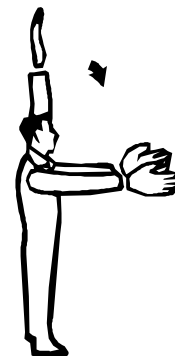
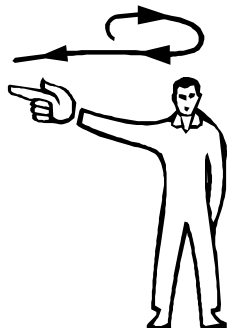
d. VERTICAL MOVEMENT--MOVE DOWNWARD: Arms extended horizontally sideways beckoning downwards with palms turned down. Speed of movement indicates rate of descent.

e. HORIZONTAL MOVEMENT--MOVE TO THE RIGHT: Left arm extended horizontally sideways in direction of movement and other arm swung over the head in same direction, in a repeating movement.



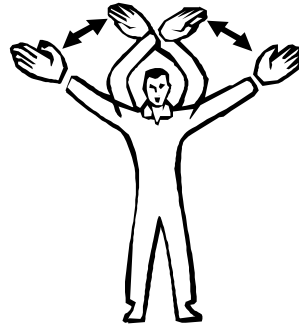
f. HORIZONTAL MOVEMENT--MOVE TO THE LEFT Right arm extended horizontally sideways in direction of movement and other arm swung over the head in the same direction, in repeating movement

g. TAKE OFF THIS WAY (at pilot's discretion): Marshaler conceals left hand and makes circular motion of right hand over head in horizontal plane ending in a throwing motion of arm towards direction of takeoff.



h. LANDING DIRECTION: Marshaler turns and faces toward point where aircraft is to land, the arms are lowered repeatedly from a vertical position to a horizontal position, stopping finally in the horizontal position.

- i. LAND: Arms crossed and extended downwards in front of the body.

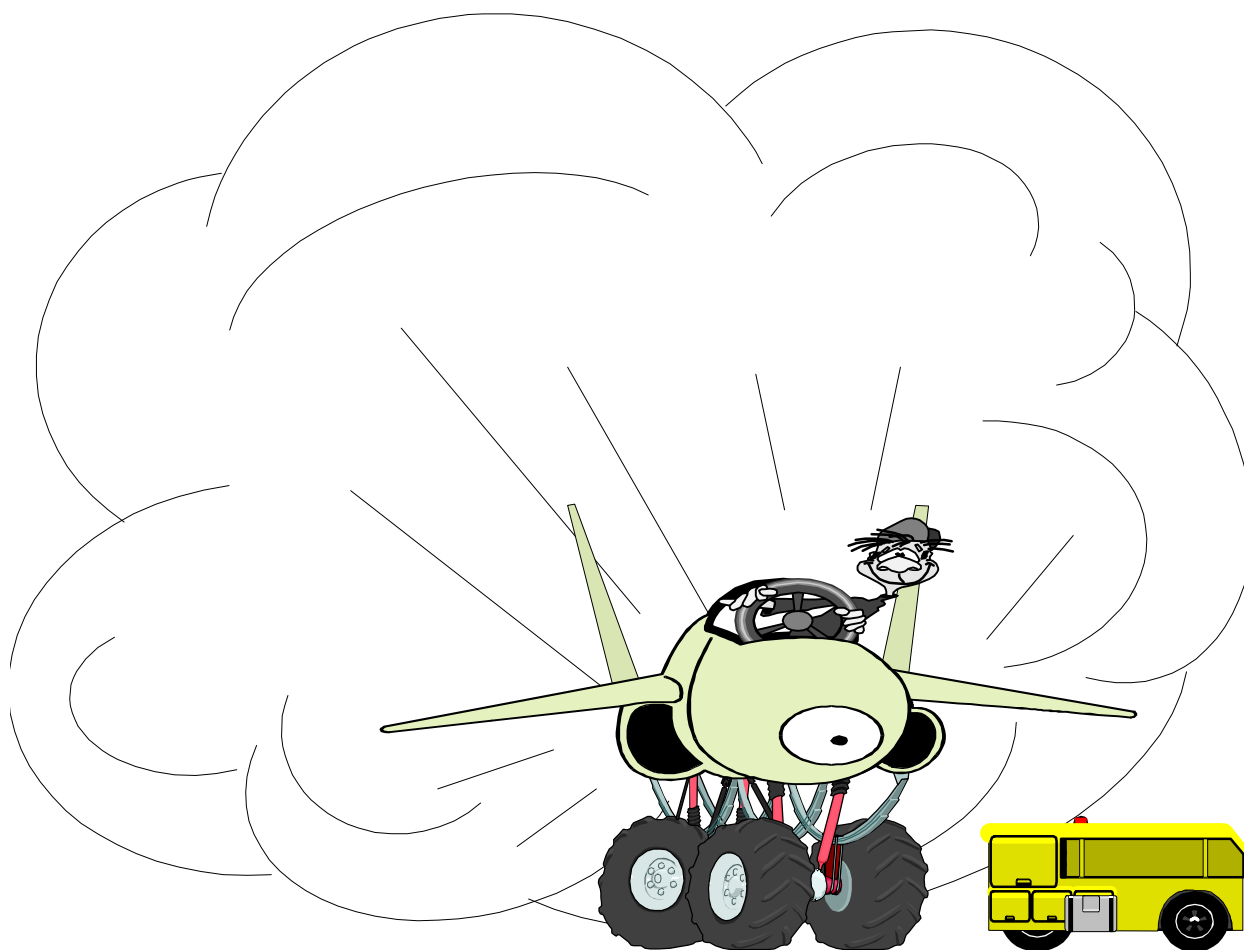


- j. Wave Off: Waving of arms over the head.

ADDITIONAL INFORMATION See AFI 11-218, (Formerly AFR 60-1), *Aircraft Operation and Movement on the Ground*; AFOSH 127-100, *Aircraft Flightline Ground Operations and Activities*; AFI 21-101, *Maintenance Management of Aircraft*; US Army FM 21-60, *Visual Signals*; DA PAM 738-750, *The Army Maintenance Management System (TAMMS)*; FM 1-500, *Army Aviation Maintenance*; OPNAVINST 4790.2F, *The Naval Aviation Maintenance Program*, and USN NA 00-80T-113, *Aircraft Signals*, for more material on this subject.

BLANK

AIRCRAFT ENGINE AND AUXILIARY POWER UNIT (APU) OPERATIONS



REQUIREMENTS FOR OPERATION OF AIRCRAFT APU: This Procedure is only an example of the basic safety precautions that should be incorporated in auxiliary power unit (APU) starting Procedures. In addition to the requirements in Chapter 8, para. 8-3, of these Contractor's Procedures, ground personnel authorized to run the aircraft's APU will follow the procedures described in the aircraft's T.O.'s and checklists when starting the APU.

Process Owner:_____.

GENERAL REQUIREMENTS FOR ENGINE RUNS BY GROUND PERSONNEL: Only GFR approved mechanics who are qualified and properly certified will be permitted to start, warm up and run engines on Government aircraft.

Ground personnel authorized to run engines must receive instructions in aircraft type on:

- a. Aircraft systems, such as electrical, hydraulic fuel, fire detection/extinguishing, fuel, oil, and starting.
- b. Appropriate sections of the flight manual.
- c. Use of ground signals.
- d. Checks and operation of aircraft radio system.
- e. Use of appropriate checklists.
- f. Operating limitations, normal and emergency procedures for engine starting, warning up, testing and shutdown.
- g. Operation of brakes and steering systems.
- h. Ground egress training.
- i. Pass a written examination, to include closed book emergency and critical action procedures.
- j. Demonstrate, semiannually, proficiency in engine operations. The demonstration will include knowledge of warnings, cautions and appropriate notes involving emergency and normal engine procedures.
- k. Engine run operators must maintain 45 day currency on engine runs.

PROCEDURES. In addition to following the applicable engine preflight checklist and engine start checklist, observe the following:

- a. The person who will be conducting the engine run will brief all other personnel involved on normal and emergency procedures, hand signals, and danger areas prior to starting engines.
- b. Check engine oil for proper quantity.
- c. Check main landing gear (MLG) struts for proper extension.
- d. Close and secure all access panels except those required for access to engine adjustment points during ground run.
- e. Engine cowlings shall be secured IAW aircraft T.O. procedures for engine runs.
- f. Check flaps fully retracted.
- g. Check flight controls for freedom of movement.
- h. Check fuel to ensure sufficient quantity is available for duration of ground run.
- i. Intakes and run-up area shall be searched and cleaned to ensure they are FOD free.
- j. MLG shall be properly chocked.
- k. Ensure an outside fire guard is available with a 50lb CO2 (or equivalent Halon/Purple K) extinguisher. Note: Halon is a fluorocarbon and will not be available in the future. If intakes are elevated, ensure the extinguisher nozzle has been modified with an extension tube so that the agent can be placed in the intake.
- l. When the aircraft is facing downwind, ensure tailwind component does not exceed aircraft T.O. limitations of engine start.
- m. Ensure aircraft is parked far enough away from personnel, equipment, and buildings so that jet blast does not cause injury or damage.
- n. Aircraft equipped with approved safety screens shall have them installed prior to all ground runs.
- o. Personnel involved in ground runs are prohibited from carrying loose items in pockets.
- p. Ground personnel shall be briefed on aircraft danger zones as stated in the aircraft flight manual. In the absence of published danger zones use the following:
 - (1) Single Engine aircraft - 15 foot radius ahead of air intake, 300 feet behind jet exhaust pipes.
 - (2) Twin-Engine aircraft - 15 foot radius ahead of air intake,

350 feet behind jet exhaust pipes.

- (3) 4+ Engine aircraft - 15 foot radius ahead of air intake,
600 feet behind jet exhaust pipes.

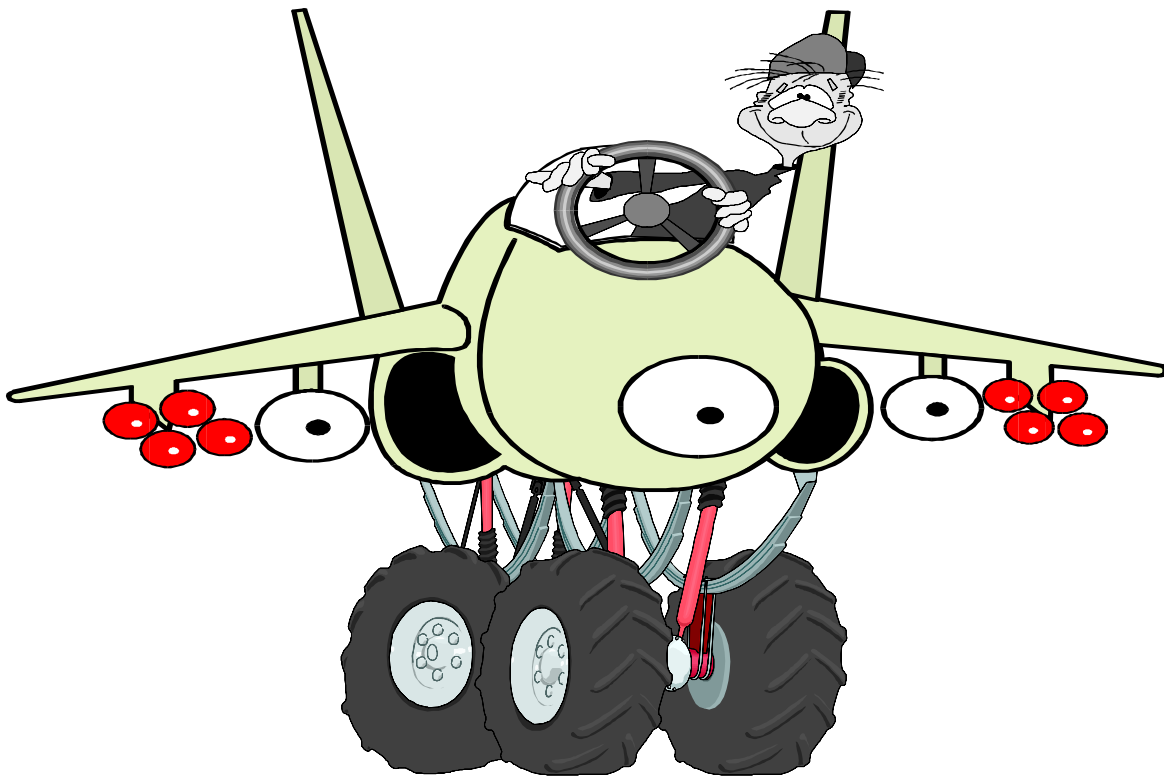
- (4) Increase area in front of aircraft to 25 feet if engines are turbofan.

q. Cockpit personnel will immediately throttle back whenever signaled to do so by outside safety observer or when personnel or vehicles approach the danger areas.

r. During engine run, no person shall attempt to open any doors or windows when the aircraft is pressurized.

ADDITIONAL INFORMATION: See DA PAM 738-750, *The Army Maintenance Management System (TAMMS)*, FM 1-500, *Army Aviation Maintenance*, OPNAVINST 4790.2F, *The Naval Aviation Maintenance Program*, USAF TO 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, AFI 11-218, *Aircraft Operation and Movement on the Ground*, AFI 21-101, *Maintenance Management of Aircraft*, and AFOSH STD 127-100, *Aircraft Flightline Ground Operations and Activities*, for more guidance in developing procedures for engine and APU operations.

AIRCRAFT TAXIING BY GROUND PERSONNEL



This Procedure is only an example of the basic safety precautions that should be incorporated in actual aircraft taxiing Procedures. Actual taxi procedures must be tailored to the specific aircraft Technical Orders. As a minimum taxi Procedures shall follow these general guidelines:

FLIGHT LINE SAFETY: All personnel are responsible for observing and monitoring safety on the flight line. When violations of safe operating practices are suspected or observed, immediately notify the Director of _____ and GFR.

Process Owner_____.

Only GFR approved pilots or mechanics who are qualified and properly certified will be permitted to start, warm up and run engines or taxi Government aircraft.

Follow engine run procedures in Appendix M.

Ground personnel authorized to taxi aircraft must receive instructions in aircraft type on:

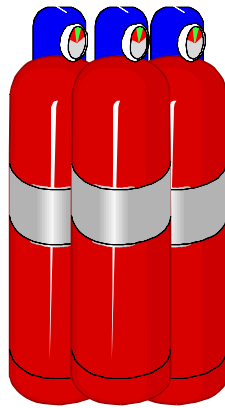
- a. Aircraft systems, such as electrical, hydraulic fuel, fire detection/extinguishing, fuel, oil, and starting.
- b. Appropriate sections of the flight manual.
- c. Use of ground signals.
- d. Checks and operation of aircraft radio system.
- e. Use of appropriate checklists.
- f. Normal and emergency procedures for engine starting, warning up, testing and shutdown.
- g. Operation of brakes and steering systems.
- h. Ground egress training.
- i. Pass a written examination, to include closed book emergency and critical action procedures.
- j. Demonstrate, semiannually, proficiency in engine and taxiing operations. The demonstration will include knowledge of warnings, cautions and appropriate notes involving emergency and normal engine procedures.

LOCAL TAXI PROCEDURES:

ADDITIONAL INFORMATION: See DA PAM 738-750, *The Army Maintenance Management System (TAMMS)*, FM 1-500, *Army Aviation Maintenance*, OPNAVINST 4790.2F, *The Naval Aviation Maintenance Program*, USAF TO 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, AFI 11-218, *Aircraft Operation and Movement on the Ground*, AFI 21-101, *Maintenance Management of Aircraft*, and AFOSH STD 127-100, *Aircraft Flightline Ground Operations and Activities*, for more guidance in developing procedures for aircraft taxi procedures.

BLANK

OXYGEN
SERVICING
AND
COMPRESSED GAS



GENERAL: The following procedures are generally accepted practices for servicing aircraft with Liquid Oxygen (LOX) and gaseous oxygen, and handling, storing and transporting compressed gas cylinders. The applicable T.O. for each aircraft must form the basis for all actual Contractor's Procedures on these subjects.

Process Owner:_____.

PROCEDURES. Only personnel certified, trained and qualified in oxygen servicing procedures by <_____> Training Branch are authorized to service aircraft. They shall be designated by name and qualifications. The qualifying/certification requirements and the list of authorized personnel shall be available for review by the GFR.

a. Safety Precautions: Before servicing the liquid oxygen system, ensure that hands, clothing and all equipment are clean. Clean fittings, overboard vent area, and when transporting a lox cart, the lox cart vent area, and surrounding areas of all foreign matter. Oxygen combines readily with oil, grease, and other substances to produce conditions that could easily bring about fire or explosion. Use isopropyl alcohol and a clean rag to clean hand tools, the oxygen servicing compartment, and the servicing car connections. Wipe the cleaned components and allow the alcohol to evaporate completely.

b. Transfer hoses shall always be disconnected immediately after tanks are filled because some liquid may be trapped in the hose and will continue to evaporate. It is possible for the hose to break because of pressure build-up.

c. Hoses and other oxygen equipment shall be handled with care and stored in clean locations. Personnel shall make certain no dirt, moisture, or other foreign matter enters hoses. Some LOX may remain in transfer hoses after pressure has been released. Personnel shall take extra care to avoid pointing these hoses at other personnel when disconnecting the hoses from tanks.

d. Because oxygen under pressure reacts so violently with grease or oil, no lubricant shall be used on oxygen generating equipment or storage tanks except those specified by the appropriate lubrication charts. With the exception of Teflon sealing tape, the application of any other lubricants or anti-seize compounds on threads or components are prohibited. All oxygen handling equipment shall be kept clean, dry, and free of oil or grease. Clean drip pans, used only for LOX servicing, shall be placed under LOX vents.

e. Smoking and open flames shall not be permitted within 50 feet of liquid or gaseous oxygen storage, transfer points, and generating plants. Two "O2 SERVICING IN PROGRESS/PURGING" warning signs shall be posted to warn personnel of the fire hazard.

f. Liquid oxygen storage tanks shall be grounded to an approved static ground.

g. Liquid oxygen transfer trailers and storage tanks shall be separated from other gas storage containers and flammable materials.

h. Unless the aircraft is equipped with pressure gage adjacent to the filler valve, a minimum of two persons shall be required to service an aircraft with gaseous oxygen. One man shall be stationed at the control valves of the servicing equipment and one man stationed where she can observe the pressure in the aircraft system.

i. Aviation breathing oxygen carts used to support aircraft shall be parked at least 50 feet from type (C) (combustible) structures IAW DoD 4145.19-R-1. They shall not be parked closer than 25 feet from any structures with fire-resistive or non-combustible exterior walls or sprinklered buildings or other construction. Parking of LOX carts on blacktop, asphalt, or other petroleum type paving shall be avoided.

j. Prior to servicing, testing, or performing any maintenance activity on aircraft oxygen systems or components, all electrical power shall be removed/ disconnected from the aircraft.

k. Prior to servicing ensure two 50lb CO₂ (or equivalent Halon/Purple K) fire extinguishers are positioned within 25 feet of the servicing operation.

PROCEDURES FOR Handling, Storing and Transporting Compressed Gas Cylinders: Handling, storing and transporting compressed gas cylinders shall be IAW DoD 4145.19-R-1 (Chapter 5-405) and the following:

a. Warning signs shall be posted to indicate that all sources of ignition, such as smoking and carrying of matches, shall be prohibited within 50 feet of possible explosive or flammable gas-air mixtures. All electrical equipment shall be explosion-proof and all sources of static electricity shall be bonded and grounded. Spark producing devices shall not be used in areas where flammable gases exist.

b. Flammable gas cylinders shall be handled carefully to minimize the dangers of fire or explosion. Valve covers shall be installed when cylinders are not in use.

c. Gas cylinders shall be moved safely from one location to another by hand trucks when possible. Cylinder valves shall be closed during movement. Under no circumstances shall cylinder valves be used for lifting purposes.

d. The name of the gas for which a valve is intended shall be stamped on the valve body. Cylinder valves will be opened by hand unless the container is equipped with a wrench key. Jammed valves shall not be freed by forcing or hammering as this may cause damage to the equipment, cause dangerous leaks or create sources of possible ignition.

e. Local refilling of a compressed gas cylinder is prohibited without approval of the GFR.

f. Flammable gas cylinders shall be stored with extreme care to prevent fires or explosions. Acetylene cylinders shall never be stored in a horizontal position. All cylinders shall be secured by a chain or other effective means.

g. Cylinders shall not be stored in locations where they are subject to temperatures above 125 degrees Fahrenheit/51.6 degrees Celsius.

h. Gas cylinders shall not be stored where there is danger of accidental damage. Neither shall they be stored in areas where they may be subjected to corrosive chemicals or similar materials.

i. Cylinders of flammable gases shall not be stored near electrical conductors or other sources of electricity.

j. Empty gas cylinders shall be plainly marked and stored in locations separate and apart from full containers.

k. Cylinders containing incompatible gases shall not be stored together. Non-flammable gases shall be stored in locations separate from flammable gases. Separation by fire wall or other approved fire-breaks are required if the two types of gases are stored in close proximity to each other.

l. When gas cylinders are stored indoors, the area shall be sufficiently ventilated to prevent the accumulation of flammable gases in the atmosphere.

m. Except for acetylene, compressed gas cylinders may be transported in a horizontal or vertical position. Regardless of loaded position, the cylinders shall be braced to prevent movement while in transit. Acetylene cylinders shall be loaded only in the vertical position.

n. Cylinders stored in the open shall be adequately protected from extreme heat or cold.

ADDITIONAL INFORMATION: See DA PAM 738-750, *The Army Maintenance Management System (TAMMS)*, FM 1-500, *Army Aviation Maintenance*, OPNAVINST 4790.2F, *The Naval Aviation Maintenance Program*, US Navy NA 13-1-6.4, *Aviation Crew System Oxygen Equipment*, NA 06-30-501, *Oxygen/Nitrogen Cryogenics*, NA 06-20-2, *Gas Cylinders (Storage Type)*, USAF TO 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding (ATOS)*, T.O. 42B-5-1-2, *Gas Cylinders (Storage Type) Use, Handling, & Maintenance*, AFI 21-101, *Maintenance Management of Aircraft*, and AFOSH STD 127-100, *Aircraft Flightline Ground Operations and Activities*, for more guidance in developing procedures for aircraft taxi procedures.

SEVERE WEATHER



This Procedure is only an example of the basic safety precautions that could be incorporated in a severe weather plan. It does not include specific operating limitations (e.g. maximum crosswind component for touch and go landings, flight in icing conditions, etc.) which are aircraft specific. Severe weather procedures must be tailored to the specific aircraft types located at the facility as well as local weather conditions.

FLIGHT LINE SAFETY: All personnel are responsible for observing and monitoring safety on the flight line. When violations of safe operating practices are suspected or observed, immediately notify the Director of _____ and GFR.

Process Owner:_____.

SEVERE WEATHER GENERAL: Severe weather makes the inherently dangerous operations performed around and by aircraft even more hazardous. The reduced visibility, unusual system performance, along with the effect of weather on personnel can convert routine operations into deadly situations. The most prudent course of action may be to avoid the severe weather by evacuating or hangaring the aircraft, and waiting until conditions improve. If this is not an option due to operational requirements personnel must prepare for the weather by refreshing themselves on its effects. Consider the following.

1. HURRICANE EVACUATION:

a. During hurricane season the Director of _____ will maintain a close watch of hurricane forecast.

b. If the storm track appears to include the contractor's facility and depending on the storm's severity, aircraft status and hangar availability aircraft evacuation should be considered.

c. If time permits, the decision to evacuate the aircraft will be coordinated through the GFR. The GFR will obtain approval and funding from the ACO and Program Office for the evacuation. Do not delay evacuation if contact with the GFR cannot be made and any delay will prevent the evacuation.

d. The Director of _____ will determine (along with the GFR) which evacuation site best meets the requirements of weather, ramp space, airfield compatibility, and distance.

e. The Director of _____ will coordinate aircrew availability with the GFR. The GFR will contact the Program Office if additional crew members are required.

f. Aircrews will follow <_____>'s approved Contractor's Procedures during the evacuation and recovery.

2. SNOW & ICE:

- a. Hangar all aircraft prior to snow/ice storm conditions if possible.
- b. Flight operations are prohibited during snow/ice storm conditions without GFR approval. PREVIOUSLY APPROVED FLIGHT AUTHORIZATIONS ARE AUTOMATICALLY RESCINDED. A new DD Form 644 must be submitted with justification for conducting operations during severe weather annotated in the remarks section (block 13).
- c. If flight operations are approved during snow/icing conditions, the aircraft must be de-iced per aircraft T.O.'s and local operating procedures.
- d. Once an aircraft is de-iced, takeoff must be performed as soon as possible to retain the maximum benefit of the de-icing fluid.
- e. Pilots will maintain safe taxi speeds when ice is present on taxiways and runways.
- f. Pilots will attempt (to the maximum extent possible) to limit power settings while taxiing in congested areas to prevent blowing snow/ice on to other aircraft.
- g. Pilots will ensure performance data for takeoff and landing, factors in the reduced braking and nose wheel steering performance encountered when the runway is snow or ice covered.
- h. Other operations:
 - (1) Aircraft towing operations are prohibited when ramp conditions provide inadequate traction for the tow tug (runway condition reading (RCR) 4 or less) unless the tugs wheels are augmented (with chains) to mitigate the poor conditions.
 - (2) Ground personnel will follow aircraft T.O.'s for removing snow from aircraft not hangared.
 - (3) Engine runs are prohibited during snow/ice storm conditions without GFR approval.
 - (4) Engine runs are prohibited when snow/ice is located where it can be ingested by the engine or blown on to other aircraft.
 - (5) Personnel will inspect engine and air conditioning intakes for snow/ice prior to conducting engine runs following snow/ice storm conditions.
 - (6) Aircraft protection devices such as engine covers will be used to the maximum extent possible.

3. COLD WEATHER:

a. Pilots and ground crews will review aircraft T.O. procedures for cold weather operations. In particular, aircraft operating limitations and the effect of cold weather on aircraft fluids will be reviewed.

b. Supervisors will ensure that ground personnel wear adequate cold weather protection. Supervisors will take into consideration exposure time verses performance.

c. All personnel will pay particular attention to the dangers cold weather gear can create due to reduced visibility.

4. HOT WEATHER:

a. Pilots and ground crews will review aircraft T.O. procedures for high temperature operations. In particular, aircraft operating limitations and the effect of hot weather on aircraft systems will be reviewed.

b. Supervisors will closely monitor ground personnel exposed to severe heat. Supervisors will take into consideration exposure time verses performance.

5. HIGH WINDS:

a. Pilots and ground crews will ensure tailwind speed does not exceed aircraft engine start limitations.

b. Pilots will not exceed the aircraft T.O. crosswind component for takeoff or landing. Touch and go landings are prohibited when the cross wind component exceeds _____ knots (an aircraft specific limitation). Pilots will include tailwind, crosswind, wind sheer and gust factors when computing aircraft performance data.

c. Aircraft that are not hangared will be adequately moored to approved tie down points. All aircraft T.O. procedures for securing aircraft flight controls will be adhered to. Aircraft protection devices such as engine covers will be used to the maximum extent possible.

d. Work stands and ground support equipment will be secured to prevent ~~the~~ from being blown into parked aircraft.

e. Aircraft jacking operations are prohibited when winds exceed T.O. limits for jacking or 15 knots whichever is lessor.

f. Ground operations are prohibited when winds exceed 35 knots.

g. Wake Turbulence and Wind Shear. Pilots will:

(1) Notify ATC when encountering wake turbulence or wind shear on any approach. Attain greater separation by making adjustments or follow ATC instructions.

(2) Report a wind shear or microburst encounter on takeoff or landing to the most appropriate agency (control tower, approach control, PMSV) and, if possible, include:

- (a) Altitude of the encounter.
- (b) Loss or gain in airspeed or altitude.
- (c) Type of aircraft.
- (d) Location of occurrence.

6. THUNDERSTORMS & LIGHTNING. Lightning strikes and electrostatic discharges can occur in what may look like benign conditions; a thunderstorm does not have to be present for these discharges.

a. Flight and ground operations are prohibited when lightning is reported within 5 NM of the airfield.

b. Pilots must use the following procedures for flights near a thunderstorm:

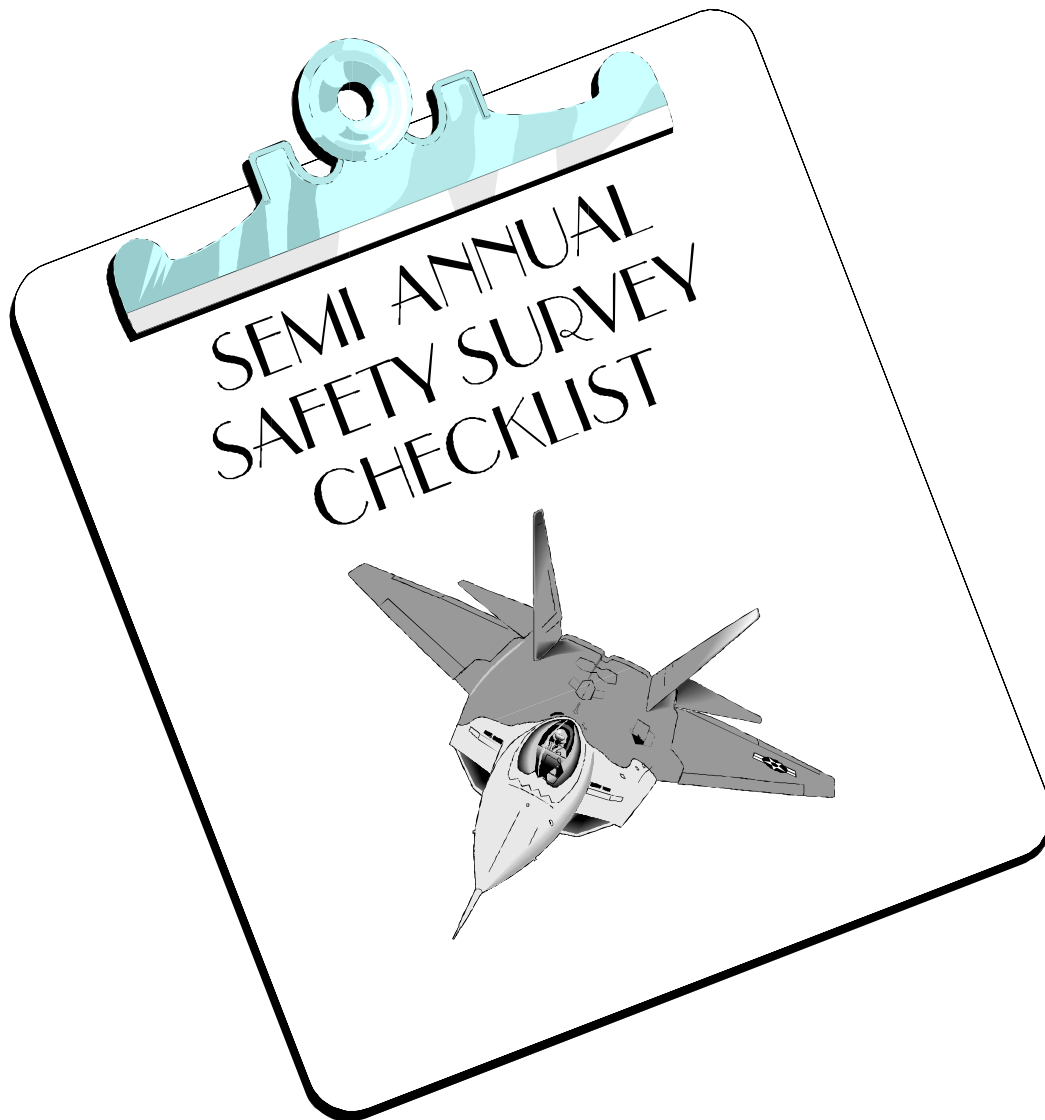
(1) Do not take off, land, or fly an approach at an airport if thunderstorms are producing hazardous conditions such as hail, strong winds, gust fronts, heavy rain, lightning, wind shear, and (or) microbursts.

(2) When observed or reported thunderstorm activity adversely affects the flight plan route, delay the scheduled mission, alter the route of flight to avoid the thunderstorm activity, or proceed to a suitable alternate. Use all available information including radar, PMSV, and PIREPs to avoid thunderstorm activity.

ADDITIONAL INFORMATION: See AFI 11-206, (Formerly AFR 60-166), *General Flight Rules*, AFI 11-218, (Formerly AFR 60-11), *Aircraft Operation and Movement on the Ground*, AFH 11-203, (Formerly AFM 51-12), *Weather for Aircrews*, AFI 32-1045, *Snow and Ice Removal and Control*, AFOSH 127-100, *Aircraft Flightline Ground Operations and Activities*, FM 1-500, *Army Aviation Maintenance*, OPNAVINST 4790.2F, *The Naval Aviation Maintenance Program*, for more material on this subject.

BLANK

SEMI ANNUAL
SAFETY SURVEY
CHECKLIST



GENERAL: The following contractor survey checklist has been developed to assist Contractors in accomplishing a thorough review of their flight and ground operations. The checklist was built to cover as many unique contractor situations as possible with the understanding that there will always be some situations that will warrant special consideration. In most cases not all items in the checklist will apply to each contractor. Contractor's will have to determine which checklist items are applicable and modify the checklist accordingly. The checklist was identical to the checklist the GFR used during his/her annual flight operations risk assessment. However, many GFRs are switching to a new Risk Assessment format. The criteria is different (but similar) to this checklist. The following checklist is still an excellent tool for performing a pre-survey analysis of contractor flight and ground operations.

Process Owner:_____.

ALL PURPOSE CHECKLIST		1		20	
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR		DATE	
ADMINISTRATIVE MANAGEMENT					
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>				
<p align="center">Ground Personnel Certification/Training Requirements CONTRACTOR SURVEY CHECKLIST</p> <p>Note: Unless otherwise noted, all references in parenthesis refer to DLAM 8210.1, Volume 1, bold print indicates Nov 91 issue only.</p> <p>I. Administrative Management</p> <p>1. Forms and Records (Reference Vol I, Chapters 2, 3, 4, & 6)</p> <p>A. Contractor's Procedures Approval and Review</p> <p>(1) Has the contractor prepared procedures for all operating facilities to include aircraft ground and/or flight operations? (Para 3-1)</p> <p>(2) Are they separate and distinct from industrial procedures? (Para 3-1) Do they define processes for all flight and ground operations?</p> <p>(3) Do they describe the controls so that personnel do not perform duties that they are not qualified or authorized to perform? (Para 3-1)</p> <p>(4) Does the contractor maintain a record of the review dates and action taken on procedures reviewed by the GFR?(Para 2-4)</p> <p>(5) Are these records being maintained for at least one year? (Para 2-4)</p> <p>B. Contractor Requesting Officials</p> <p>(1) Are only contractor-designated requesting officials submitting requests for flight crewmember approvals and qualification training? (Para 6-1)</p> <p>(2) Are requirements IAW Contractor's Procedures and error-free?</p> <p>C. Government Approval for Qualification Training</p> <p>(1) Does the contractor ensure that crewmembers do not fly or begin qualification training before receipt of Government approval? (Para 6-2)</p> <p>(2) Does the contractor initiate qualification training within 90 days of approval? (Para 6-2b)</p>					

ALL PURPOSE CHECKLIST		2	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
ADMINISTRATIVE MANAGEMENT			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
	<p>(3) Is this training completed without interruption? (Para 6-2b)</p> <p>D. Government Approval for Flight Crewmembers</p> <p>(1) Have all contractor flight crewmembers received written approval of the GFR prior to flight? (Para 6-3b)(Para 6-3)</p> <p>E. Government Approval for Noncrewmembers</p> <p>(1) Does the contractor's requesting official issue written approval to each contractor and subcontractor for noncrewmembers before the individual's first flight? (Para 6-5)(Para 6-4)</p> <p>(2) Does the contractor's requesting official make sure that each person is required and qualified to serve in a specific capacity while aboard military aircraft? (Para 6-5)(Para 6-4)</p> <p>(3) Does the contractor keep the written approval on file until the individual is no longer authorized to fly? (Para 6-5)(Para 6-4)</p> <p>(4) Does the contractor limit approved personnel to those needed to perform on the contract? (Para 6-5a)(Para 6-4a)</p> <p>(5) If the GFR determines that the written approval has been signed without adequate justification, does the contractor ensure that the individual(s) are not allowed to fly pending the result of any appeal? (Para 6-5b)(Para 6-4b)</p> <p>(6) Does the contractor review personnel assignments every six months? (Para 4-6, change from 3 Apr 79 regulation)</p> <p>F. Records of Training and Qualification</p> <p>(1) Does the contractor maintain record folders for flight crews in training and, as a minimum, does it include: (Para 4-2)</p> <p>a. A record of qualification training? (Para 4-2a)</p> <p>b. A record of the grade and date of the current aircraft and aircrew examinations? (Para 4-2b)</p> <p>c. Hour, type, and dates of ground school completed? (Para 4-2c)</p>		

ALL PURPOSE CHECKLIST		3	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
ADMINISTRATIVE MANAGEMENT			
No.	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</i>		
	<p>d. Flight resume of training covered? (Para-4d)</p> <p>e. A record of training prerequisites? (Para 4e)</p> <p>(2) After training and qualifications, does the contractor maintain the following information as a minimum: (Para-4)</p> <p>a. Complete training folder? (Para 43a) Kept for at least one year? (Para 43a)</p> <p>b. Copies of GFR flight crewmember approvals? (Para-4b)</p> <p>c. Certification of current FAA flight physicals? (Para-3c) Military flight physical OK (Para 43c)</p> <p>d. Copies of aircrew proficiency during the last two years? (Para-3d) Copy of latest aircrew proficiency examination? (Para-3d)</p> <p>e. Certificate of physiological training? (Para-3e) and altitude chamber when required? (Para 43e)</p> <p>f. Certificate of applicable egress and survival training? (Para3f) additionally life support? (Para 43f)</p> <p>g. Copies of applicable FAA certificates? (Para-3g) and records of other qualifications? (Para 43g)</p> <p>(3) Do the folders for flight personnel (noncrewmember members) include:</p> <p>a. Completed copy of contractor's authorization to fly? (Para-4a)</p> <p>b. Certification of current medical examination? (Para 4b)</p> <p>c. Certification of training and qualification as required? (Para4c)</p> <p>d. Certification of physiological training? (Para-4d) and altitude chamber? (Para 4-4d)</p> <p>e. Certification of applicable survival and egress training? (Para4e) and life support? (Para 4-4e)</p>		

ALL PURPOSE CHECKLIST		4	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
ADMINISTRATIVE MANAGEMENT			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
	<p>G. Instructor/Examiner Selection/Approval</p> <p>H. Crewmember/Noncrewmember Flight Records</p> <p>(1) Is a record of flight time by aircraft, depicting date and conditions of flight for each crewmember, being maintained? (Para-4)</p> <p>I. Flight Time Records (Para 46)(Para 4-5)</p> <p>(1) Does the contractor maintain a record of flight time for each flight crewmember? (Para 4-6)(Para 4-5)</p> <p>J. Termination of Approvals (Para 67)(Para 6-6)</p> <p>(1) Upon notification of termination of employment of flight crewmembers, does the contractor notify the GFR in an expeditious manner and confirm within ten calendar days? (Para 6-7a) (Para 6-6a)</p> <p>(2) Does the contractor's "requesting" official request termination of approval for flight crewmembers in writing (Para 67b)(Para 6-6b)</p> <p>K. Ground Personnel Records</p> <p>(1) Maintain record folders for ground personnel including fire fighting and crash/rescue. It should include: (Para 45)</p> <p>a. Certification of qualification training? (Para-4a)</p> <p>b. Certification of continuation training (ground egress, engine runup, towing, crash/rescue, etc.)? (Para 45b)</p> <p>c. Certification of current medical examination? (Para-4c)</p> <p>2. Publications</p> <p>A. Operations (FLIP, NOTAMS, manuals, checklists)</p> <p>(1) Does the contractor maintain current FLIP/Jeppeson/other appropriate flight publications in the flight planning facility? (Para2a(1))</p>		

ALL PURPOSE CHECKLIST		5		20	
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR		DATE	
ADMINISTRATIVE MANAGEMENT					
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>				
	<p>(2) Does the contractor maintain and or use a Flight Crew Information File (FCIF) include interim changes or revisions to the approved contractor's procedures? (Para 23(9))(Para 3-4a)</p> <p>(3) Does the contractor use government technical manuals and checklists in all flight operations where applicable technical data has been published? (Para 2B)(Para 3-4b)</p> <p>(4) Does the contractor ensure that only the most current technical data is provided for use by all personnel? (Para 32b)(Para 3-4b)</p> <p>(5) For FAA certified aircraft does the contractor maintain all applicable Airworthiness Directives and Service Bulletins for review?(Para 3-4b)</p> <p>(6) Does the contractor ensure in those instances where mixed personnel operations exist (government and contractor) that identical checklists are being used? (Para 2B)(Para 3-4b)</p> <p>B. Safety</p> <p>(1) Does the contractor maintain safety publications/periodicals for contractor personnel review? (Para 32p(1)(c))(Para 3-6a(3))</p>				

ALL PURPOSE CHECKLIST		6	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
FLIGHT MANAGEMENT			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
II. Flight Management 1. Mission Profile/Flight Planning. Does the contractor provide the pilots with the following? (3-2a(1)) (3-2a) <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Flight crew briefing/planning area. Current FAA publications. Flight filing procedure. Weather briefing. NOTAMs. </div> <div style="width: 45%;"> Local area charts with restrictions. Airfield diagrams with restrictions. Local center/tower operating agreements. Mission profiles. Briefing Guides. </div> </div> 2. GFR Approval Authority. A. Are contractor flights properly classified and submitted for approval? (3-2a(2)) (3-2b) (1) Are flight requests submitted IAW time requirements and Contractor's Procedures? B. Is there an individual contractor designated as being responsible for approving flights? (3-2a(3)) (3-2c) C. Is "pilot in command" designated with Government contractor aircrew? (3-2a(5)) (3-2d) D. Is "pilot in command" designated for formation or multi-piloted aircraft? (3-2a(5)) (3-2e) E. Are the minimum crew requirements for each aircraft designated? (3-2a(6)) (3-2f) 3. Aircrew Duty and Rest Limitations. (3-2a(7)) (3-3) A. Has the contractor identified their maximum aircrew duty time and rest requirements and are they being followed? 1. 10 (12) consecutive hours for single piloted aircraft or 12 hours on dual acceptance/test flights. 2. 16 consecutive hours for dual piloted support flights with working autopilot used. 3. 6 flying hours in 10 (12) hour duty period for non-support single-piloted helicopters. 4. Minimum crew rest of 12 hours, with 8 hours allowed for sleep. A. Does the contractor crew force properly adhere to duty day start times?			

ALL PURPOSE CHECKLIST		7 20		
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE	
FLIGHT MANAGEMENT				
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>			
	<p>B. Can the crew duty period be extended and does the aircrew know how this is done?</p> <p>C. Do the aircrews know their restrictions on alcohol use?</p> <p>5. Publications. (32b) (3-4)</p> <p>A. Does the contractor have a designated location for the Flight Crew Information File (FCIF) and is it being properly maintained? (3a(9)) (3-4a)</p> <p>B. Does the contractor ensure/document aircrews don't fly without FCIF review? (3a(9)) (3-4)</p> <p>C. Is the information in the FCIF relevant and current? (3a(9)) (3-4)</p> <p>D. Are interim changes to the Contractor Flight Operation Procedures included in the FCIF? (3-2a(9)) (3-4)</p> <p>E. Are military and technical flight manuals and directives current? Is there someone who ensures this is being done? (32b) (3-4b) Is there a written procedure and someone designated?</p> <p>F. If applicable, are FAA Airworthiness Directives and Service Bulletins current? (2b) (3-4b)</p> <p>G. If locally devised checklists are allowed by the procuring authority, are they current? (3-2b) (3-4b)</p> <p>6. Qualifications and Training. (32) (3-5)</p> <p>A. Is aircrew qualification and training documented and continuously monitored? (2b) (3-5b)</p> <p>B. Are aircrew qualification and training folders readily available and well organized? (3-2f) (3-5c)</p> <p>C. Do the folders include: flight certificates, licenses, log books, instrument ratings? (2b) (3-5h)</p> <p>D. Is aircrew standardization and evaluation accomplished appropriately? (2b) (3-5e)</p>			

ALL PURPOSE CHECKLIST		8	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
FLIGHT MANAGEMENT			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
	<p>E. Does the contractor have procedures for requesting Government approval for qualification training and are they being properly used? (3) (3-5f)</p> <p>1. Is a DD Form 1821 and training outline attached to the request? (Atch 1) (Encl 1)</p> <p>2. Has the training been initiated within 90 days and completed? (2b) (6-2b)</p> <p>F. Does the contractor have and use the criteria and procedures for selection of aircrew and instructors? (3-2L) (3-5i)</p> <p>G. Does the contractor request Government approval of aircrew? (Encl 2) (3j) (3-5g)</p> <p>H. Does the contractor have procedures for termination of aircrew approval and are they being followed? (32m) (3-5j) (5-1/5-2)</p> <p>I. Has the contractor established policy on contractor multiple qualification currency and is it being followed? (32d) (3-5a) (7-1)</p> <p>J. Is Night/Instrument qualification required? (3g) (3-5d) (7-2c)</p> <p>K. Is a list of flight personnel and qualifications submitted the GFR regularly? (65c) (6-4c)</p> <p>L. Are expiration dates for recurring training included? (3a) (3-7a)</p> <p>7. Safety. (3-2) (3-6)</p> <p>A. Is there a contractor Consolidated Safety Council to actively promote flight safety? (3-2p(1)(a)) (3-6a(1))</p> <p>B. Are the Safety Council's meetings documented with attendance and topics covered?</p> <p>C. Are there monthly flight safety meetings with senior management involvement. Is attendance being recorded and meeting minutes distributed? (2p(1)(f)) (3-6a(6))</p> <p>D. Does the contractor hold semiannual flight safety surveys, examining the following: (3-2p(1)(b)) (3-6a(2))</p> <p>1. Safety publications.</p> <p>2. Published safety responsibilities.</p>		

ALL PURPOSE CHECKLIST		9	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
FLIGHT MANAGEMENT			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
	3. Hazard, Mishap, reporting, and correction procedures. 4. Monthly flying safety meetings minutes put in FCIF? 5. Duties/responsibilities of the designated aviation safety official. 6. Fire protection and prevention program (NFPA Codes). 7. Crash and rescue procedures (AFSCR/AFLCR 55). 8. Aircraft ground handling/servicing procedures. 9. Foreign Object Damage control. 10. Airfield and facilities. E. Does the contractor have a Premishap Plan? (3-2p(2)) (3-6b) 1. Does it include accident investigation cooperation to include: a. Site preservation. d. Photographs. b. Security requirements. e. Fuel/oil samples. c. Weather observations. f. Witness statements. 2. Does it include mishap reporting procedures for GFR/SS/ACO/PCO notification? 3. Does it include a current roster of relevant government personnel? 4. Are there proper procedures for a medical exam of personnel involved in a mishap? 5. Are there procedures for a missing or overdue aircraft? 6. Are there procedures for rescue and fire fighting? 8. Flight Crewmember Requirements. (3) (3-7) A. Are there procedures for the following and are they being followed: (3a) (3-7a) (5-1) 1. Aircrew initial qualification. 2. Aircrew requalification. 3. Upgrade qualification. 4. Instructor qualification. B. Is currency monitored to prevent flying out of qualification? (3a) (3-7a) (5-5) C. Do ground training requirements include the following: (3b) (3-7b) 1. Land survival training. 2. Water survival training, if applicable. 3. Life-support equipment training. 4. Egress training. 5. Physiological training. 6. Ground school requirements. 7. Emergency procedures training.		

ALL PURPOSE CHECKLIST		10	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
FLIGHT MANAGEMENT			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
	<p>D. Do aircrew flying requirements include the following:</p> <ol style="list-style-type: none"> Minimum currency for 1 landing every 45 days. (5) (5-5) Semiannual and annual flight time/sorties. (Table 7 thru 7-6) (Table 7-1) (7-2a) Simulator training used/approved to fulfill currency requirements. (7b) (7-2b) Currency minimums for multiple aircraft qualifications approved. (7-6) (7-5) Annual proficiency flight evaluation. (3c(2)) (3-7c(2)) Annual instrument flight evaluation. (3c(3)) (3-7c(3)) Annual maintenance test evaluation when required by the Army (3-7c(4)) Designate who may administer flight evaluations. (3c(4)) (3-7c(5)) (7-4) Current military or FAA flight physical. (3c(5)) (3-7c(6)) Post mishap flight evaluation. (3p(4)) (3-7c(7)) <p>9. Non-crewmember Requirements. (34) (3-8)</p> <p>A. Are there contractor procedures for selection and flight status approval and are they being followed? (52d) (5-4d)</p> <p>B. Do non-crewmember requirements include the following:</p> <ol style="list-style-type: none"> Physiological training (or GFR approved waiver). (4) (5-6) Qualification procedure. ((34c(2)) (3-8c(2)) Egress training. (55) (5-7) Current military or FAA flight physical. (4b) (5-6) Contractor physical requirements. (34(4)) (3-8c(5)) Life support equipment training. (44e) (3-8c(6)) <p>10. Passenger Transportation Procedures. Does the contractor have procedures for carrying passengers and are they being followed? (8) (3-9)</p> <p>11. Planning and Flight Mission Procedures. (3) (3-10)</p>		

ALL PURPOSE CHECKLIST		11	20																				
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE																				
FLIGHT MANAGEMENT																							
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>																						
	<p>A. Has the contractor established mission profiles for each type of flight? -(7a) (3-10a)</p> <p>B. Has the contractor established who is responsible for the mission and mission briefing?</p> <p>C. Are flights properly monitored during missions (location, status, fuel)?</p> <p>D. Do aircrew briefings include, as a minimum, the following: -(7b) (3-10c)</p> <table border="0"> <tr> <td>1. Station and Takeoff time.</td> <td>11. Communications.</td> </tr> <tr> <td>2. Primary Mission.</td> <td>12. Lost Communications.</td> </tr> <tr> <td>3. Mission Aircraft.</td> <td>13. Recovery and Landing.</td> </tr> <tr> <td>4. Support Aircraft.</td> <td>14. Alternate Mission.</td> </tr> <tr> <td>5. Weather.</td> <td>15. Life Support Equipment.</td> </tr> <tr> <td>6. Crew Duties.</td> <td>16. Emergency Procedures.</td> </tr> <tr> <td>7. Route of Flight</td> <td>17. Security for Mission.</td> </tr> <tr> <td>8. Range/Working Area.</td> <td>18. Passenger Briefing.</td> </tr> <tr> <td>9. Flight Test Profile.</td> <td>19. Formation/Chase.</td> </tr> <tr> <td>10. Ground Coordination.</td> <td>20. Mission Debrief.</td> </tr> </table> <p>E. Are aircrews being properly briefed on aircraft maintenance status prior to flight?</p> <p>F. Do contractor flight procedures meet FAA requirements and include? -(7d) (3-10d)</p> <ol style="list-style-type: none"> 1. Basic regulations, to include flight areas. 2. Letters of agreement with local ARTCC and tower for civil airfield operations. 3. Weather minimums. 4. Traffic control tower requirements. 5. Filing flight plans. 6. Standard operating procedures for: <ol style="list-style-type: none"> a. Radio failure. b. Landing gear malfunction. c. Crosswind landing criteria. d. Airdrome traffic procedures. e. Emergency procedures. f. Controlled bailout/jettisoning areas. g. Arming and dearming (if applicable). h. Minimum fuel i. Severe weather plans. j. Use/maintenance of life support gear. k. Barrier/arresting gear procedures. l. Laser operations. m. Live fire gunnery operations. 	1. Station and Takeoff time.	11. Communications.	2. Primary Mission.	12. Lost Communications.	3. Mission Aircraft.	13. Recovery and Landing.	4. Support Aircraft.	14. Alternate Mission.	5. Weather.	15. Life Support Equipment.	6. Crew Duties.	16. Emergency Procedures.	7. Route of Flight	17. Security for Mission.	8. Range/Working Area.	18. Passenger Briefing.	9. Flight Test Profile.	19. Formation/Chase.	10. Ground Coordination.	20. Mission Debrief.		
1. Station and Takeoff time.	11. Communications.																						
2. Primary Mission.	12. Lost Communications.																						
3. Mission Aircraft.	13. Recovery and Landing.																						
4. Support Aircraft.	14. Alternate Mission.																						
5. Weather.	15. Life Support Equipment.																						
6. Crew Duties.	16. Emergency Procedures.																						
7. Route of Flight	17. Security for Mission.																						
8. Range/Working Area.	18. Passenger Briefing.																						
9. Flight Test Profile.	19. Formation/Chase.																						
10. Ground Coordination.	20. Mission Debrief.																						

ALL PURPOSE CHECKLIST		12	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
FLIGHT MANAGEMENT			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
	<p>n. Formation/chase (include emergencies)</p> <p>G. Is each aircraft weight and balance accurately determined prior to flight? (3-10d(4)(k))</p> <p>H. Supersonic logs maintained as applicable.</p> <p>12. Forms and Records. Are all forms/records being made available to the GFR upon request? (4)</p> <p>A. Are aircrew records recorded on DD Form 1281, or other approved form? (41)</p> <p>B. Does the contractor maintain a training folder for aircrew currently in training? (24)</p> <p>C. Do the training folders contain the following: (2)</p> <ol style="list-style-type: none"> Record of qualification training. Current aircraft and aircrew examinations with date and grade. Ground school with dates completed, hours, and type of aircraft. Flight training log with areas covered and performance graded. <p>D. Does the contractor maintain a record folder for all aircrew with the following? (43)</p> <ol style="list-style-type: none"> Training folder from paragraph 1-C above. GFR aircrew approval. Current FAA/military flight physical. Aircrew proficiency record with examination results for last two years. Physiological training record. Egress and survival training. Copies of applicable FAA certificates. <p>E. Does the contractor maintain a folder for noncrewmember with the following? (44)</p> <ol style="list-style-type: none"> Contractor non-crewmember's authorization to fly. Current medical examination certification. Certification of applicable training qualifications. Physiological training record. Egress and survival training. <p>F. Does the contractor maintain a log of flight time by aircraft type, model, series, and inflight duties with date and condition of flight for each flight crewmember? (4-5)</p> <p>G. Does the contractor maintain a record folder for ground personnel? (See Section III) (4-5) (8-5)</p>		

ALL PURPOSE CHECKLIST		13	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
GROUND OPERATIONS			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
III. GROUND OPERATIONS 1. Does the contractor have written procedures to ensure that only trained, qualified, and/or certified personnel perform ground operations and aircraft rescue and fire fighting? (Para 8-1)(Para 8-2) A. Are these procedures approved by the government? (Para-8)(Para 8-2) B. Do the procedures require medical exams for contractor ground personnel? (Para28) C. Do the procedures include qualification and requalification requirements for ground personnel? (Para 82b) D. Do the procedures require the contractor to train and certify their ground personnel annually in the following ground operations? (Para2c) (1) Powered aerospace ground support equipment. (Para 82d(1)) (2) Aircraft weapons, munitions, cartridge activated devices, laser and explosive handling. (Para 82d(2)) (3) Aircraft refuel/defuel, fuel system purging, and maintenance. (Para28(3)) (4) Oxygen system servicing. (Para 82d(4)) (5) Aircraft towing. (Para 82d(5)) (6) Aircraft marshalling. (Para 82d(6)) (7) Aircraft jacking. (Para 82d(7)) (8) Egress system maintenance (ejection and extraction systems) and explosive operated canopy removal systems. (Para 82d(8)) (9) Aircraft engine and auxiliary power unit operation. (Para 82d(9)) (10)Aircraft taxiing by ground personnel, if applicable. (Para28(10)) (11)Aircraft hydraulic system servicing and ground cooling. (Para28(11)) E. Do the procedures include a severe weather plan, to include mooring and down procedures? (Para 82e)			

ALL PURPOSE CHECKLIST		14	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
GROUND OPERATIONS			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
2.	<p>Do ground personnel authorized by the contractor to start, operate, or test aircraft installed engines and/or aircraft APUs receive the following annually? (Para 8-3a) Is this information documented?</p> <p>A. Practical instructions on (Para 8-3a)</p> <p>(1) starting and ground operation of engines.</p> <p>(2) operation of aircraft steering.</p> <p>(3) operation of aircraft brake systems.</p> <p>(4) radio operation.</p> <p>(5) engine fire procedures.</p> <p>(6) all other applicable emergency procedures.</p> <p>B. Receive ground egress training (Para 8-3b)</p> <p>C. Receive ground evacuation training (Para 8-3c)</p> <p>D. Pass a written examination, to include bold face and critical action emergency procedures (Para 8-3d)</p> <p>3. Do ground personnel demonstrate (semiannually) their proficiency (Para 8-3e), including knowledge of warnings, cautions and notes, and emergency procedures to certifying personnel? (Para 8-3e)</p> <p>A. Are personnel authorized to certify engine operators approved by the GFR (Para 8-3e)</p> <p>4. Are ground personnel required to operate the same type of engine in the same design aircraft at least once every 45 days? (Para 8-3f)</p> <p>5. Are other personnel required to receive general familiarization training annually on safety and knowledge of aircraft hazards? (Para 8-4)</p> <p>6. Is the contractor maintaining records with documentation of training, certification, recertification, and medical examinations of all ground personnel, as appropriate? (Para 8-5)</p>		

ALL PURPOSE CHECKLIST		15	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
GROUND OPERATIONS			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
<p align="center">**FOD Program**</p> <p>7. Does the contractor have a Foreign Object Damage (FOD) prevention program that specifies the responsibilities of all personnel? (3-6a8)</p> <p>A. Is there a standard in the contract? ie. Mil Std 980, section H</p> <p>B. Is a high level manager responsible for FOD prevention?</p> <p>C. Are FOD prevention education programs directed at all applicable employees?</p> <p>D. Does the contractor have an overall plan for FOD prevention?</p> <p>E. Are taxiways, runways, and aircraft parking areas clean and free of potential FOD producing material?</p> <p>F. Is there an airfield/flight line sweeping program in effect?</p> <p>G. Is in-process FOD producing material controlled:</p> <p>(1) during production?</p> <p>(2) during overhaul?</p> <p>(3) during maintenance?</p> <p>H. Are FOD incidents tracked to observe trends, repeats, and unusual conditions?</p> <p>I. Are there procedures for a lost item (such as for lost tools) during the performance of a maintenance task?</p> <p>J. Are engines inspected for FOD before and after each engine run and flight?</p> <p>K. Are foreign objects found in critical areas retained pending disposition instructions from the ACO?</p> <p>L. Does the contractor and Quality Control/Assurance conduct foreign object inspections of all closed areas as well as all FOD entrapment compartments and migratory routes prior to final sealing?</p> <p align="center">**Tool Control and Hardware Control**</p> <p>8. Does the contractor have a viable tool control program in place with written procedures to follow? (3-6a9)</p>			

ALL PURPOSE CHECKLIST		16	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
GROUND OPERATIONS			
No.	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</i>		
	<p>A. Are tool boxes inventoried at the beginning and end of each shift by all workers?</p> <p>B. Does the supervisor conduct random tool checks?</p> <p>C. Are lost or missing tools and hardware identified and reported in a timely manner?</p> <p>D. Are maintenance/manufacturing debris removed after each shift change?</p> <p>E. Were all inventory lists accurate on each random check?</p> <p>F. Is there a first line supervisors role in tool control?</p> <p style="text-align: center;">**Ground Handling**</p> <p>9. Does the contractor have written procedures for ground handling of aircraft (3-6c)</p> <p>A. Is there a formal aircraft parking plan?</p> <p>B. Are specific areas designated for performing engine runs?</p> <p style="padding-left: 20px;">(1) Are these areas satisfactory?</p> <p>C. Have procedures for aircraft towing been published?</p> <p>D. Are wing walkers required per military tech order?</p> <p>E. Are taxi lines painted?</p> <p style="padding-left: 20px;">(1) If so, do they apply to all aircraft?</p> <p>F. If taxi lines do not fit the aircraft, are marshallers and wing walkers aware of potential hazards?</p> <p>G. What is minimum taxi criteria?</p> <p>H. Are aircraft parking spots marked? If so, are they used?</p> <p>I. Are static grounds provided for each parking spot?</p> <p>J. Are tiedowns provided?</p>		

ALL PURPOSE CHECKLIST		17		20	
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR		DATE	
GROUND OPERATIONS					
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>				
<div>**Servicing Procedures**</div> <div>10. Does the contractor have written procedures for the servicing of aircraft(8-2d)</div> <div>A. Are these procedures being followed?</div> <div>B. Are aircraft properly grounded during fueling operations?</div> <div>C. Are no smoking areas established, properly marked and complied with by all personnel?</div>					

ALL PURPOSE CHECKLIST		18	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
SAFETY			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
IV. SAFETY Note: DLAM 8220.3 Dated Apr 91 was used for reference. 1. Accident Prevention Program A. Does the contractor conduct consolidated safety council meetings in order to promote a program of accident prevention in flight, ground, industrial and explosive activities (Para 3-2p(1)) (Para 3-6a(1)) B. Does the contractor conduct semiannual flight safety surveys (Para 3-2p(1)(b)) (Para 3-6a(2)) C. Does the contractor maintain safety publications (Para 3-2p(1)(c)) (Para 3-6a(3)) D. Does the contractor have published safety responsibilities for designated safety personnel (Para 3-2p(1)(d)) (Para 3-6a(4)) E. Does the contractor have adequate hazard mishap reporting and correction procedures (Para 3-2p(10)(e)) (Para 3-6a(5)) F. Does the contractor have regularly scheduled monthly flying safety meetings (Para 3-2p(1)(f)) (Para 3-6a(6)) (1) Does the contractor document safety meetings to indicate attendees, date and summary of subject matter covered (DLAM 8220.3/Para 6) G. Does the contractor have a system for briefing absentee personnel on safety meeting topics (DLAM 8220.3/Para 62) H. Does the contractor brief recurring topics annually to include physiology of flight, weather and environmental problems, aircraft malfunctions/ emergencies and operational safety hazards (DLAM 8220.3/Para 62) I. When fewer than five crewmembers are assigned, does the contractor maintain a read file of safety related material satisfying the flying safety meeting requirement (DLAM 8220.3/Para 6-2) J. Did the contractor designate an aviation safety official with specific duties and responsibilities (Para 3-2p(10)(g)) (Para 3-6b(1)) K. Does the contractor have an adequate fire protection and prevention program (Para 3-2p(1)(h)) (Para 3-6a(7))			

ALL PURPOSE CHECKLIST		19	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
SAFETY			
No.	ITEM <small>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</small>		
	<p>L. Does the contractor have adequate foreign object damage control procedures (Para 3-2p(1)(k)) (Para 3-6a(8))</p> <p>M. Does the contractor have adequate tool control procedure(Para 3-6a(9))</p> <p>2. Preaccident Plan</p> <p>A. Does the contractor have an adequate preaccident plan? (Para-3p(2)) (Para 3-6b(3))</p> <p>(1) Awareness/action for overdue aircraft. (DLAM 8220.3/Para 6a)</p> <p>(2) Provisions for search and rescue procedures. (3p(3))</p> <p>a. Does the contractor notify all the appropriate search and rescue and collateral groups? (DLAM 8220.3/Para 6-3b)</p> <p>(3) Does the plan address participation by airport, contractor and local fire and medical departments? (DLAM 8220.3/Para 63c)</p> <p>(4) Does the plan require the assessment of primary rescue responsibility and procedures to verify number of personnel aboard the aircraft? (DLAM 8220.3/Para3c)</p> <p>(5) Does the plan require immediate notification of EOD personnel, ejection seat technicians (as appropriate) and local/state law enforcement personnel? (DLAM 8220.33d)</p> <p>(6) Does the plan provide for immediate notification of appropriate DLA, contractor and military personnel? (DLAM 8220.3/Para-6e)</p> <p>(7) Does the plan contain procedures to ensure the mishap site is safe from unexploded ordinances, toxic or corrosive materials, explosive devices or other potential dangers to personnel? (DLAM 8220.3/Para 63f)</p> <p>(8) Does the plan provide for security of the mishap aircraft and site? (DLAM 8220.3/Para 6-3g)</p> <p>(9) Does the plan provide for the preservation of perishable evidence? (DLAM 8220.3/Para 6-3h)</p> <p>(10)Does the contractor have established procedures to provide initial mishap notification in accordance with DLAR 8200.4? (DLAM 8220.3/Para3i)</p> <p>(11)Does the plan have procedures or provisions to provide for initial news media releases? (DLAM 8220.3/Para 63j)</p>		

ALL PURPOSE CHECKLIST		20	20
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE
FACILITIES REVIEW			
No.	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph)</i>		
V. FACILITIES REVIEW (DLAM 8210.1) 1. Are airfield facilities and services adequate to support the flying operation? (Vol II, 4-2f(2)(d)) 2. Is arresting gear in place if required? 3. Are airfield markings to FAA/Military standards and properly maintained? (Vol II, 4-2f(2)(d)) 4. Is the airfield inspected daily by a qualified contractor official? (Vol II, 3-2a(20)(g)) 5. Does the contractor have an office/person identified for the pilots to submit reports on airfield hazards/deficiencies? (Vol II, 3-2a(20)(d)) 6. Have personnel received instruction in the use of flight line fire extinguisher? (Vol II, 3-2a(20)(f)) 7. Is vehicle traffic on the flight line controlled? (Vol II, 3-2a(20)(g)) 8. Do drivers have to receive special training? (Vol II, 3-2a(20)(g)) 9. Is the Contractor's navigation/communication equipment satisfactory for contractually required flight activity? (Vol II, 3-2a(1)) 10. Are radio operators/tower controllers properly qualified and certified? (Vol II, 3-2b(2)b) 11. Has a flight acceptance/functional check flight area been established in coordination with local FAA and military authorities? (Vol II, 3-2b(1)a) 12. Have letters of understanding and/or agreement been negotiated with the FAA and/or other ATC facilities? (37d) (Vol I, 3-10d) 13. Is a map of the ACF/FCF area displayed in the flight operations facility? (37d) (Vol I, 3-10a) Are suitable emergency landing fields identified? 14. Has a controlled jettison/egress area been established and depicted on a suitable chart? (3-7d(5)(f)) (Vol I, 3-10d(4)(f))			